THE

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BRANCH I.

ORIGINAL COMMUNICATIONS.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Description of a Machine for Cutting or Breaking Grain, lately erected by Mr Wight at Fillyside, near Edinburgh. With a Plate.

SIR, *Edinburgh, 18th March* 1808.

AT Mr Wight's at Fillyside, near Leith, Mr William Watson, engineer, Bonington, has erected a machine for cutting grain for feeding horses, which gives Mr Wight much satisfaction. It is driven off the perpendicular shaft which communicates motion to his thrashing-machine. The machine is impelled by a five-horse power, and will drive both the cutting and thrashing-machine at the same time, or separately, as occasion requires, or as water may be scarce or plentiful. Mr Watson can vouch, that this machine will cut five bolls of oats, wheat or barley, and seven bolls of peas or beans, in the hour. Wheat that had been damaged on shipboard, and kiln-dried, was the grain I saw the machine cut; the greater part of which was reduced into a mealy state, and the rest into very small pieces, in passing once through the machine. The cylinder and breast are both of malleable iron, case-hardened. The breast is fixed, and is nine inches in length, and four and a half inches in breadth, by one inch in thickness; being fluted longitudinally, and concave on the side presented to the cylinder. The cylinder is nine inches long, and five and a half in diameter, fluted in the longitudinal direction. The flutes are parallel, having about one eighth of an inch pitch: they amount to 138. The cylinder

performs about 380 revolutions in the minute. The cylinder and breast are both placed horizontally; the grain being cut in passing between the sharpened edges of the flutes of the cylinder and those of the breast. The flutes are sharpened with a file; and, when this is done, the operation will cost about 15s.; but, unless glass, stones, iron, or something of the hardest sort, is put through the machine, the operation of sharpening will not be required once in cutting the corn necessary to feed the horses, say ten, on a moderate sized farm, in the course of three years. There is a wooden box, or shoe, for conveying the grain, suspended, in an inclining direction, from the hopper L to the breast I, and dropping the grain betwixt the cylinder H and the breast I; which box, or shoe, is not delineated in the ground plan, as it would have obscured the cylinder, and rendered that part of the drawing indistinct. Total expense of materials and erection, 15*l.* Sterling—scale one third of an inch to a foot. From the accompanying drawing and references, with the preceding description, I trust the nature of the machine, and mode of its operation, will be readily comprehended. I am, &c. JOHN SHIRREFF.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Authorized Improvements on the Duke of Buccleuch's Estates in the Southern Districts of Scotland.

SIR,

AMONG the numerous communications presented by your correspondents, I have often wondered that the conduct of the Duke of Buccleuch towards his tenantry in the counties of Dumfries, Roxburgh and Selkirk, has never been mentioned. It surely merits attention, as an instance of enlightened and generous policy, tending much to form the character, and increase the comfort, of a numerous and highly respectable class of men. It might also, I think, serve to the diffusion of useful knowledge in various branches of rural economy; and, whilst it gave a tribute of praise that is justly due to the noble proprietor, who has shown himself the father of his tenantry, the public would learn, that these tenants have not abused his goodness, but have been as ready to carry his plans of improvement into effect, as he was to propose them.

Allow me, then, to undertake the task, and to describe, in the present paper, the important improvements of *surface-draining on sheep farms*, and *mole-catching*.

First, Of *surface-draining*.—About forty years ago, it was not unusual for sheep-farmers to draw a few surface-drains on some of

of the wet portions of their land; but it is only within these eighteen or twenty years that the practice has become general; and within a later period still, that it was completely understood. These surface-drains are, in general, from 24 to 30 inches wide at the top; from 8 to 12 inches at the bottom; and from 12 to 15 or 18 inches deep: but the degree of depth depends much on the hardness or softness of the ground. They are commonly laid in such a sloping direction along the sides of the hills, that the water which runs shall neither have such velocity as to run them into gullies, nor move so sluggishly as to sand them up, and overflow the pasture beneath. It is impossible to say exactly, at what distance from each other the drains should be; for this is guided by the depth of the drain, and the nature of the ground; but, in general, they are from 25 to 35 or 40 yards: so that the drained portion of a hillside or bog, appears to the traveller to be divided into gently sloping parallel lines, which either empty themselves into each other, if the quantity of water be trifling, or, as more generally happens, into the neighbouring rivulets or burns. With respect to their length, this is also determined by the surface and extent of the ground; but they are generally wished to be from half a mile to three fourths: it being found from experience, that when little water is collected, they are more apt to fill up, and grow together. A considerable degree of genius is therefore required to plan them properly; and it is of more consequence to a farmer than may at first sight appear, to procure a person who is master of this business; the expense of draining being considerable. Much pasture is lost by laying them injudiciously; and it adds to the vexation, when they are either so up hill as to retain the water, or so exceedingly down hill as either to collect none, or to carry it off too rapidly. I have seen much ground spoiled, and much money thrown away, by employing an unskilful drainer.

In the operation of cutting surface-drains, several tools are requisite. The following are those commonly in use. 1*st*, A *reel*, like a gardener's, with a line of a certain number of roods, to mark out the direction of the drain. 2*d*, A *rutting spade*, 18 inches deep, by 12 inches wide, in the form of a triangle, rounded at the point, which is kept very sharp by means of a piece of freestone, about 20 inches long, and 6 or 8 inches broad, that the operator carries along with him. If near a rivulet, he can easily get water to sharp with; but should he happen to be on benty or mossy ground, the defect may be supplied by cutting a small square hole in the ground, that soon fills, from the wetness of the adjoining parts. The 3*d* implement used, is a *raising spade*, 18 or 20 inches wide, by 18 inches deep, also in the form of a tri-

angle, but rather sharper at the point than the rutting spade. The *4th* is a *hack*, similar to those that are used for pulling dung from carts, only narrower and shorter in the prongs, and with a shorter handle. The *5th* and last is a *cleaning spade*, 6 or 8 inches broad, by as many deep, which is used in finishing off the drains. Many make use of a garden shovel, considerably bent, for this last purpose. To these I might add, although not essential to the business, a pair of shoes with wooden soles, provincially called clogs, and a pair of strong leather *leggums*, to keep the legs and feet dry, when working in wet soils. These are the tools commonly used; and I shall now describe the common way of making surface-drains. The drainer first considers attentively the nature of the ground, and how the drains may be laid to the best advantage. If he can make them run *up* the water, and empty themselves *against* the current of the burns, he prefers it; in other words, if the rivulets run south, he wishes his drains to run northerly, and so of any other direction. Having settled this point to his mind, he next fixes the pin of his line in the earth, retires backwards with the reel in his hand till the whole is unrolled, considers the proper declivity that the drain should have, and then fixes it down. After this he takes his rutting spade, and cuts along the line, so as to form one side of the drain; then changes the line to the other side, and cuts that likewise. Having marked both sides, his next work is to cut the sods across with the raising spade, and of a proper length, so as to be easily drawn out with the hack, and laid on the under side of the drain. But this does not commonly bring the drain to the proper depth: he has therefore to employ the rutting spade a second time, and after that the cleaning spade, to deepen it a little, and remove any clods or inequalities at the bottom. Accordingly, the bottom of the drain is generally a little more than the width of the cleaning spade, which is pushed rapidly along, by being pressed against the inside of the knee. An experienced hand can do, in this way, from 40 to 50 roods of 18 feet each, per day, at one penny per rood.

The soils most improved by surface-draining are the following. 1*st*, Clay and moss bogs, the last of which becomes more compressed; and both of them being deprived of their superfluous moisture, afford, for ten yards or so below the drain, a thick stool of sweet rich grass, which the sheep eat in harvest and the beginning of winter; while the remaining twenty or thirty yards, between that and the next drain, afford a strong coarse grass, which stands the frost, and is eaten by them in winter and spring. 2*dly*, Benty ground, which generally lies at the head of clay and moss bogs, is also greatly improved by surface-draining; for the

fleet

fleet water being carried off, the pasture, as may naturally be supposed, is much sweetened; and, what is of immense advantage on such soils, the sheep obtain a dry bed in wet and stormy weather. I confine it to the times when the weather is unfavourable; for when it is good, they commonly betake themselves in the evening, as every traveller must have observed, to the tops of the mountains. The *last* kind of soil which is improved by surface-draining is that known by the name of Flow-moss; which is often so wet, when in a state of nature, as to prevent sheep from entering on it at all; but which, by being drained, becomes exceedingly useful to the sheep-farmer. It allows his flocks to spread themselves easily and equally over the grounds, and increases often, in a considerable degree, their quantity of spring food. Perhaps it may sound odd to some of your readers, to be told, that the sheep on Highland farms get their chief subsistence, during the whole of March and beginning of April, from under ground. Yet it is nevertheless true; for they then subsist chiefly on the long, white, sweet roots of the ling, which they draw from the flows with great assiduity. I ought to remark, however, that although the flow-moss be much improved by draining, it is not looked upon as advantageous to make it very dry. It is considered sufficient to remove so much of the moisture as to give the sheep an easy and safe access to it.

Such, Sir, is the nature of that surface draining, on sheep farms, which began, I believe, upon the Duke of Buccleuch's estate; which has uniformly received his marked approbation, many even obtaining from him considerable sums to carry it into effect; and which has been copied successfully by neighbouring proprietors. Yet, I am afraid that, after all, it is not so generally practised as it ought to be; for, about nine years ago, when a person from this parish, who had taken a farm in Annandale, only about eighteen miles distant, began to drain, the neighbours around came to look at it as a curiosity, and several of them considered it as a spoiling of ground. Nay, a friend, who returned but the other day from Galloway, told me, that he saw, in his route, only one farm that was surface-drained.

Having said so much concerning the making of drains, it is proper that I should say something about repairing them. This is found needful after a longer or shorter time, according to the nature of the soil; for the soft, spungy ground, when dried, naturally presses downwards and outwards: but they are easily repaired by cutting a slice from either side, and cleaning out the bottom. This operation costs 5s. the hundred roods; and when they are once repaired, they commonly stand for many years. At present, from particular inquiry, the author of this paper is

able to state, that the number of roods of surface-drains, in the parish where he resides, are no fewer than *two hundred and twenty-one thousand seven hundred and twenty*, or near four millions of feet. Your readers, therefore, may guess at the whole number on the Duke's estate, in the counties of Dumfries, Roxburgh and Selkirk. But let us now attend to the

Second improvement I mentioned, or that of *mole-catching*; for though surface-draining was exceedingly advantageous on sheep-farms for a few years, it was found to be defeated, in some measure, by the vast number of moles which everywhere riddled the ground. Indeed, the draining seemed to increase both their number and activity; for, by their working into the drains, in dry weather, the water got out, dispersed the new mould cast out of the drains, made it a top-dressing to the soil, and produced a rich soft grass, which, when eaten in autumn, was considered as one of the causes of rot in sheep. In order, therefore, to obtain all the good from surface-draining that it was fitted to give, the apparently endless task of mole-catching became necessary. This, however, was got over by the wisdom and benevolence of the proprietor; for, knowing that men trained to the trade were employed in England for cleaning the low grounds of these destructive animals, it naturally occurred to him, that their exertions would be equally useful on his highland and arable farms. Accordingly, about eleven years ago, he entered into an agreement with Messrs Thompson and Fleming, from Westmoreland, to clear his whole grounds in the south of Scotland. The bargain with these gentlemen was as follows.—The term was fourteen years, during the first three of which, they were to have ten shillings the hundred acres for arable farms, and five shillings the other eleven; and for sheep-farms eight shillings and four pence the hundred acres the first three years, and four shillings and two pence the other eleven —the persons employed to be boarded with the farmers during the time they were on their grounds, at so much per week, payable by Messrs Thompson and Fleming. The reason of the difference of price, during the term of years, will be easily seen; the moles, at the end of three years, being naturally expected to become much fewer, and the persons employed in catching them also fewer in proportion. This was the bargain which the Duke made, and which, for reasons afterwards to be mentioned, he laid on the tenantry according to the rental of their respective farms. But it ought to be remarked, that those proprietors who wish now to bargain for mole-catching, cannot expect to have it on quite so easy terms; for the expense of labour and subsistence are greatly increased; and besides, it cannot be supposed, that men will take

five

five or ten thousand acres, lying in separate portions through the country, as low as between two and three hundred thousand lying almost together. Yet I have no hesitation in saying, that they will find their account in trying the improvement, even at considerably advanced prices.

The implements which are needful in mole-catching are the following —A mole-trap, a paddle, and a needle. Those who have never seen a mole-trap, may perhaps understand it from the following description.

Let *a a* be a cylindrical piece of wood, 5 or 6 inches long, and about 10 inches round, the heart of which is completely scooped out, to allow the mole to pass through it with ease: *b b* are two grooves made in the inside of the cylinder, about an inch from each end, represented by the dotted lines: *c c* two small cords, which are fastened at the one end to the outside of the cylinder by a knot, run round the grooves, where they are covered over with wet earth when set, to prevent the mole from feeling them; and after they come out again from the cylinder are tied together at *d*: *e* is a short cord tied along with them, and knotted at the lower end, *f*; where, when the trap is set, it is fixed in a hole in the upper part of the cylinder, by means of the peg *g*, represented by dotted lines, because supposed to be partly within the cylinder: *h* is a large hole cut in the lower side of the cylinder, to allow the molecatcher to fasten this peg. Things being thus disposed, he takes his paddle, or small spade, which is commonly about 5 or 6 inches wide in the mouth, 3 inches deep, and has a handle like a common garden shovel; makes the hole where the trap is to be set; and after he has cleared out the rubbish, and opened its communication with the run on either end, he places the trap carefully in the line of run, fixes it down with two strong wooden pins linked into each other, covers it over with turf, to prevent any light from entering, and then applies the spring *i*, which is commonly a strong hazel branch about 4 feet long, fixed firmly into the ground on one end, and having the other inserted into the loop, which joins all the cords of the trap together. Thus, when the trap is set, the whole force of

the spring is upon the short cord *e*, fastened by the peg *g*: but when the mole enters, and finds her way obstructed by the peg, she forces it out; this transfers the force of the spring from the short cord *e*, to the two long ones *b b*, draws them up close to the top of the cylinder, and thus suspends the mole either in the one cord or the other. The increased length of the cords informs the molecatcher of what has happened; he lifts the trap, removes the mole, takes his iron needle, which hangs at his side, to clean out the grooves on each end, covers the cords anew in them with wet earth, and sets the trap as before. In this way do they proceed for about 40 weeks every year, making their appearance on the estate generally about the 20th of August, and going away about the 28th of May next year. The common manner of mole-catchers going over the farms, is to begin with those which lye at the heads of the rivers, and to go downwards to the lower arable districts, as the winter approaches; there they remain during the winter months (except going home sometimes to see their friends in time of frost), and, as the weather becomes milder, they gradually reascend, till they finish on the pasture farms, at the heads of the rivers, where they began. The reason of their being engaged only from the 20th of August to the 28th of May following, will be easily understood by those of your readers who have attended to the natural history of the mole; for they commonly breed in the end of May and beginning of June, having 5 or 6, rarely 7, at a time; so that it must be the middle of August, or the usual time of the molecatchers' return, before the young ones can be able to throw up many molehills. Yet I would submit to the consideration of the gentlemen of the trade, whether they would not accomplish their purpose in a still shorter time, by leaving a few hands in the country, to open the breeding molehills, and kill the young ones before they left the nests. These molehills are easily known from the rest, by their being much larger. The plan I propose is not an ideal one; for an acquaintance lately tried the experiment, by taking a spade with him to the hill, when he went to look after the sheep, and killed about an hundred before he returned. Perhaps I should add, that moleskins bring a considerable profit to the molecatchers, especially during the first years of a lease; for they sell them in great numbers to the fur-merchants and hatters at 2d. per dozen.

I have been thus minute in the account of mole-catching, that those who have not seen it may be able to appreciate its utility. It certainly has, in connexion with surface-draining, been of immense advantage on the Duke of Buccleuch's estate. Yet it is easy to see that the full value thereof cannot be ascertained till the

the practice becomes general; for the lands that are cleared are often much infested by colonies from those which are not.

Should the present paper merit a place in your useful and widely circulated publication, there are other subjects of equal importance that at a future period may be laid before your readers. I am, &c. W. B.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On Pickling Seed Wheat.

SIR,

THE utility of pickling wheat meant to be used for seed, and the benefit derived from that preparatory process, have been long and generally acknowledged by the great body of practical agriculturists in this island. At different times, individuals, chiefly of that class characterized as philosophical and chemical agriculturists, have appeared to doubt, and in some instances to deny, the utility of pickling; because they could not comprehend how, and in what way, that process prevented the crop from being smutted. To be sure, it is a difficult matter to explain the mode and manner in which pickle operates upon the seed plant, as, at the best, the operation can only be guessed at; and should these gentlemen remain sceptical till that secret is revealed, I apprehend they will long continue unbelievers. Were they to be satisfied with facts gathered in the school of experience, and, in some instances, purchased at a high price, their doubts, however, might soon be removed. One fact with a practical agriculturist has more weight than an hundred reasons. It is by the effects that follow the use of lime and dung that the virtue of these articles can be sufficiently ascertained; and it is by the effects of pickling, and the unhappy consequences which daily follow the neglect of it, that we are enabled to ascertain the utility of that process, fully as well as if the curtain of nature were withdrawn, and the *modus operandi* completely disclosed.

I am led to make these remarks from perusing an essay in Dr Dickson's Agricultural Magazine for November last, which contains a harmless attack upon one of your correspondents, with some small wit against those who support the pickling system. Dr Dickson I consider as a sensible man, and possessing a larger stock of prudence than to make a direct attack upon your work; though, on the other hand, he does not seem to feel any objection, when galloping past your door, to fire a pistol through the window. In the essay alluded to, either Dr Dickson, or some person for him, notices what is mentioned in the Young Farmer's letters with

with regard to pickling and smut, and characterizes the opinions given as originating in a prejudice which seems as yet incurable in the north, and accompanied with a laughable degree of passion. I know you will smile at such a passage, and probably feel too much contempt for its author to take further notice of him. Though this may be the right method of treating the author, I am not sure whether it is the best way of supporting the practice animadverted upon; therefore, with your permission, beg leave to offer some considerations in defence of the pickling process, and to describe the consequences attending the neglect of pickling, in some instances which have come particularly under my personal observation.

In my early years, when farming was not more familiar to me than it is to Dr Dickson or his correspondent, I had contracted opinions something very near akin to those entertained by these gentlemen, and, like them, was in the habit of laughing at the folly of my neighbours who took the trouble of pickling their wheat. I used to characterize pickling as a branch of the quack system, and with great confidence inquire at those who differed with me, how a drop of urine or water mixed with salt could be capable of preventing wheat from being smutted. Fully satisfied with the correctness of my principles, I acted accordingly, and persisted in their rectitude, till I had not a sound field of wheat upon my farm. The result served to open my eyes, though you may be satisfied that I paid dearly for the operation. I then imitated the practice of those whom I had formerly considered as less enlightened, and can with confidence maintain, that, since I regularly used stale urine as a pickle, and saturated the wet grain with hot lime, I have rarely ever found a smutted head of wheat in any one of my fields. This system I have sedulously followed for twenty-five years, and in that period have sowed wheat to an extent not much exceeded by any farmer in the island.

Having stated what happened in my own case, I shall briefly detail what occurred upon a farm in my neighbourhood, which I had occasion to find out when employed upon the premises as an arbiter. The outgoing tenant, who probably was one of Dr Dickson's disciples, had sown the whole of his wheat fields with dry seed. The farm was afterwards set to another tenant, who, to procure immediate entry, agreed to pay for labour, manure, &c. &c.; and the amount of these articles was left to be settled by arbiters mutually chosen. It fell to my lot to be one of these arbiters; and the business was soon despatched. Before harvest, it was discovered that every field was less or more smutted; and though the old tenant, strictly speaking, was not liable on that account, it was judged proper to examine the fields, and ascertain

ascertain the extent of the damage. This the arbiters did in the only way in which it could be ascertained. They employed a careful person to walk across every field, and to cut a handful every six ridges, which, when brought out, was examined by them, and the number of sound and diseased heads were carefully marked. The result was, that upon no field the number of smutted heads was less than ten in the hundred; upon some of them forty and fifty; and in one not fewer than seventy. Taking an average of the whole, the loss exceeded one third of the crop, laying no stress upon the injury done by the smut to the grain that was otherwise sound. This is a correct state of that unfortunate business; and having given it, permit me to offer one or two passing observations.

In the first place, when the loss from smut is so great, why will a single agriculturist be so fool-hardy as to run any risk, seeing it may be completely avoided by pickling the grain that is used for seed? I by no means question, that sound grain will not be procured from unpickled seed, under certain circumstances Wheat does not smut in a single season, no more than potatoes procreated from sound seed become curled when planted a second time. Wheat completely pickled in one year, probably will not be smutted in the second year, at least to no more than an inconsiderable degree; but, persist with using the same seed in a dry state, and the consequences are certain and fatal. But why run the smallest risk? Pickling can be completely executed at sixpence per acre; and does this trifling expense (laying no stress upon the disgrace) bear any affinity to the loss which arises from a smutted crop? Certainly not. The premium is but a trifle when compared with the immensity of the benefit.

In the second place, I am at a loss in what light an agricultural publication should be considered, wherein the useful and necessary process I am speaking of, is treated with disregard, nay, rather with contempt. The only favourable excuses that can be urged are, that its author is ignorant of the practice of husbandry; that he is not competent to judge of the merits of the most useful practice which husbandmen execute; and that he is rather to be sympathized with than blamed for occupying a station difficult to be filled by any one unacquainted with practical husbandry. I admit the force of these excuses; and, knowing that you would not willingly allow me to extend my remarks upon a hostile publication to a greater length, I beg leave to add, that I am, at all times, your friend and servant,

ARATOR.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On Rural Embellishment.

SIR,

THOUGH the leading feature of your Magazine be utility, yet I cannot but suppose that a number of your readers would occasionally desire some entertainment from a few speculations on elegance. The subject, indeed, is closely connected with utility. A farmer or tradesman is no sooner easy in his circumstances, than he wishes to make this evident to his neighbours; not content with being happy within himself, he would be thought so by others. Luxury is the means of accomplishing this purpose; and the moment we have recourse to luxury, of whatever degree, we overstep the bounds of necessity, and invade the province of taste and elegance. The limits of this province vary, no doubt, with the changing face of society; but they do not therefore cease to exist, though difficult to be defined with accuracy. Of its various districts, rural embellishment is perhaps the most interesting and rational, because the most intimately connected with the products of the soil, which are not only the source of life itself, but of all that is convenient or elegant among mankind. It is on this subject that I propose to offer a few remarks.

It is essential to rural embellishment that it be removed from vulgarity. This is its only unvarying principle, as it is the only permanent source of pleasure to the opulent. In rude and barbarous times, a chief, when he could rear a thatched hut to protect his family from the inclemency of the weather, and enclose a few fields around it to protect sheep, cattle and grain, would feel himself vastly superior to the straggling herd of savages who took shelter in the woods, and prolonged their existence from those (then vulgar) animals, the deer, the hare, and the boar. Some ages afterwards, when the vulgar had so far imitated the great as to cultivate, enclose, and live in houses, those of the great would, of course, receive enlargements, so as to become distinguished by magnitude or style; and as the general face of the country became covered with enclosures, the fences and roads of the nobles would be changed into high walls, avenues, and straight rows of tall trees, that they might be different from the crooked hedge and ditch of the farmer. Gardens would now become conspicuous; and that they might be duly distinguished, both from nature and vulgarity, would be disposed in the most artificial manner: all forms would either be geometrical, or contrived to display an excess of art, of which circular basons of water,

water, and shrubs cut into regular or imitative shapes, are examples.

But as the advantage in some cases, and in others the grandeur of square enclosures, strips and avenues, would soon render them common among the farmers and the lower classes of landholders, men of taste, to be distinguished from their neighbours, would aspire to some new mode of disposing their residences. In place of avenues and roads geometrically straight, perceiving nature to abound in varied lines, they would imitate them, not as they are, but as they are seen with the eye of a geometrician; to whom waving lines are *regular serpentines*; or biculate shapes, *circles*; long strips, *parallelograms*; and so on. Hence serpentine canals, and belts, and walks, and round clumps of planting. There are various causes that have rendered this mode vulgar and disagreeable. In the first place, the affectation of natural ease in this studied display of supposed graceful forms, would disgust; and, in the next place, the conspicuousness of round isolated clumps, would render residences even more exactly alike than trees in avenues, strips and rows; which, besides disposing themselves better into large masses, have the further merit of never showing every part at one view, as in residences where the whole consists of a few round clumps, one serpentine walk, one serpentine river, and one serpentine belt enclosing the whole.

This mode of embellishment became vulgar for men of taste to have recourse to, in order to be supereminently* distinguished. The transition, though humiliating, is easy; from a formal affectation of improving nature to the simple imitation of her beauties. The excellence of this mode would the more easily be felt by men of elegant minds, from the view of those residences, where the force of natural character prevailed over artificial decorations; and of such places a number have always existed in romantic situations.† Some artists, or proprietors, in adopting this new taste, might imitate nature indiscriminately, or copy parts without considering their relation to a whole; but the more judicious would select the choicest beauties, imitate the finest circumstances, and would have, for their object, the production of that expression or character, which was most suitable to the situation, and to the proprietor.

These changes of taste are, in truth, a complete revolution; for those who now aspire at distinction among the distinguished, (if the phrase be allowable), can effect it only by having recourse to

* I say *supereminently*, because farmers are too wise to spot their fields with clumps. It is the *great vulgar* from whom the man of taste would wish to be distinguished.

† As Hafod, Heckfall, Dunkeld, Blair, &c.

to an open portion of surface varied by wood, something like original forests, containing wastes and pasture glades inhabited by deer and game; a house, either *low*, irregular, and in the cottage style, approaching to the primitive huts, or *high* towered embattlements and buttresses, &c. in the style of the middle ages. Any above the one, or below the other, is like a clergyman's *manse*, or the box of a retiring tradesman. With respect to Grecian architecture, which was in vogue a century ago, porticos and colonnades are common to every haberdasher, who has them either stuck at the door of his shop, or leaning against the post of his villa in the suburbs. History has been termed philosophy teaching by example. What, it may be asked, are we taught by it in this instance? To this it may be answered, that we are taught generally this permanent principle, that distinction, with intelligence, is the essence of elegance. But what, it is urged, are the comparative merits of these different styles? has the last of them, which has for its object the imitation of nature, no greater claim to our approbation than its novelty? On these questions, it may be observed, that each style, in its own time, was best; and that their real merits, as those of any work of art, consist in the *mind* or comprehension which they display; consequently, our knowledge of, and taste for nature, displays more mind than a taste for the puny works of our own hands.

It is proper to observe here, that, to superficial connoisseurs, whatever is most in fashion, will, independent of its intrinsic excellence, be invariably not only better than any thing in use, but better than any thing ever before known. Hence, to such critics, whatever has the charm of novelty will be in the best possible taste. Perhaps something of this kind will be imputed to me, were I to attempt to show the superior excellence of the last, or the approaching taste, in rural embellishment. I shall, however, venture a few remarks as the conclusion of this part of my subject.

First, I observe, that the cause of these revolutions was, in every case, the similarity of improved scenery. Individuals found that they were not enough distinguished; and the reason was, that whatever might be the natural character of the situation, a common character of art was conferred upon it. The grand desideratum was, a style of improvement which should render country seats completely different from each other. It is evident, that none can be better adapted for this purpose than a style, the leading principle of which is to heighten the natural character of the scenery, and accommodate it with every appendage of art to the mind and wants of the possessor. The result of such a style being carried into execution must be, to render country residences

ces as different from each other as are men—men not like automaton things, where nature, by our education and refinement, is cramped and confined, like the foot of a Chinese girl; but such whose education, like the style we have proposed for improving scenery, tends to unfold and heighten character—not a Cockney, but an Æmilius—not an Alderman, but a Highland *Laird*.

In the *next* place, I may remark, that the proof of the perfection of any art is its answering its end. The first styles never answered their end, because nature could not be overcome by art. Mountains could not be levelled, rivers made to run in straight courses, nor all trees to grow of tame, uniform shapes; which unquestionably would have highly pleased the admirers of the first style, as such trees do the taste of most kitchen-gardeners of the present day. The last, or approaching style, however, coincides with nature in every thing. The species of tree, and mode of planting, is indicated by the soil and surface; the character of the mansion by the character of the ambient scenery; its extent by the wealth of the proprietor. Utility directs, that the garden be in a sheltered situation, and the walks laid out where they will best afford a shelter and sun in winter, and shade and the breeze in the summer months, and good views at all seasons. When all this is done, there will be no part at variance with itself, no roads nor avenues stretching indiscriminately over hill and dale, no clumps perched on the tops of mountains whose sides are bare; no insipid composition of clumps, belts, and tame rivers; or avenues, alleys and canals, without mark or likelihood; but everywhere that new discrimination of character, that comprehensive display of elegance, which is the result of studying what will best mature the indications of nature.

Men can never admire what they do not understand. Hence, in rude ages, their chief pleasure was derived from their own simple and gross productions. It is not till mankind have become learned and refined, that they acquire a taste for understanding the more intricate and comprehensive works of nature. I do not mean to say, however, that when a taste for nature has become general, that no new change will afterwards take place. I know too well, that a further advance of art may consist of compositions formed on principles analogous to those of nature; or that artists (as in society, with respect to certain natural pleasures) may diverge into the monstrous or absurd; after which their progress is retrograde, till the arts are lost in their primitive rudeness. Such has been the progress and decline of the arts in Greece and Rome.

In my next, I shall be more immediately practical. I am, &c.

Woodhall, Middlesex, 18th Sept. 1807. J. L.

TO

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Strictures on the Letter from Aberdeenshire, Vol. VII. p. 422, concerning the evil Tendency of Ascertaining the Value of Land by the highest Offer.

SIR,

THE paper from Aberdeenshire, inserted in your Magazine of November 1806, 'On the evil Tendency of Ascertaining the Rent of Farms by the highest Offer,' involves, to be sure, no question of agricultural science, but certainly one of some practical utility. The subject lies within a narrow compass, and is not difficult to be discussed; but it is handled in a manner so objectionable, in my opinion, by your correspondent, that I shall take the liberty of making some remarks upon it.

He says, that 'it seems to be an opinion, gone into by the highest class of agriculturists, that the only sure way of ascertaining the *value*, or *rent*, of a farm, is from the different offers of those who mean to occupy and become tenants thereof.' In the present case, your correspondent seems to me to have fallen into a mistake, in supposing the value and rent of a farm to be the same identical thing. To my apprehension, rent has a reference to the interest which the landlord enjoys in the land; and value, on the other hand, to the more temporary connexion which subsists between the tenant and the soil that he cultivates. Agriculturists do not fix upon this or that particular plan for ascertaining the real value of a farm they are about to let, but expressly for the purpose of obtaining the highest possible rent. It is the province, again, of the farmer, let his landlord ask as much as he pleases, to give no more than the value of the particular farm he has in view. The two parties are at issue; the one to get as much rent as he possibly can, the other to offer as little, and, at all events, not to give more than the value of the land.

'Prejudice,' says he, 'in favour of any opinion, which has once gained the ascendancy, is often capable to conceal, from very acute minds, reasons which appear to others of great moment.' Your correspondent has admitted, that they are of the highest class of agriculturists, and men of very acute minds too, who recommend the mode of ascertaining the rent of farms by the highest offer; yet he brands the opinions entertained by them with the epithet of prejudice. If those who favour this side of the question be so very distinguished, they must certainly be the least liable of any class of men to be carried away by that passion. Yet, without producing a single argument to reconcile a supposition

supposition so very improbable, he pronounces sentence of condemnation upon people of whom he had previously taught us to expect a very different character. It is very easy for him, or for any body, to say, that such a thing is all prejudice; but he ought to have gone a little further than his mere *ipse dixit*; and, instead of begging the question at the very outset, it was his duty to have pointed out the errors of those distinguished men, and left his readers to draw their own conclusions.

He goes on; 'In what follows, by way of stating the question, I contend for an original right,—which seems in some danger, as the times go, of being entirely lost; that is, when the parties are both pleased, a demand ought to be made for the farm; whether high or low, is out of the question.' When I began reading this sentence, I was afraid that the people of Scotland were upon the point of losing one of those political privileges which have been the means of raising it to its present pitch of grandeur and opulence; and I was hopeful that some of our representatives would be fortunate enough to meet with a passage so well calculated to awaken them to the preservation of the rights of the public. I was agreeably disappointed, however, upon finding that the original right, which is represented to be in so much danger of being lost, is of a very private nature, and one simply between landlord and tenant. Your correspondent takes it for granted, because convenient for his argument, that the tenant has the right of insisting upon the landlord making a demand of rent for a particular farm. I am not so fortunate as to be in the very enviable situation of a landlord, and, being of a very different profession from that of a tenant, may be presumed to be untainted with that foul disease under which, it seems, the best characters in the kingdom at present labour in an extraordinary degree. I may be supposed, upon this account, to be at least a dispassionate judge between two parties, whose object and whose interests are, in many respects, so very dissimilar. In this novel capacity, I have considered the supposed original right with all the attention in my power, and cannot discover its existence, much less its origin. I know that a landlord is proprietor of a certain quantity of land, and, in a free country, possesses the sole and uncontrouled management of it, either by letting it or not, to this or to that person, just as he pleases. In casting my eye over the privileges of the tenant, I can see no legal or other right that he enjoys of insisting upon the proprietor making a demand of rent for a particular farm he has set his affections upon. I do think that, if your correspondent had given the subject the smallest consideration, he would not have been guilty of saying that a landlord, who is under no obligation to let at all, should be under the ne-

cessity of following a particular regimen when he did come to let a farm.

But, supposing this original right of demand to be established, what good will it do your correspondent, or the class of people whose cause he has espoused, with more zeal certainly than wisdom? If the making of a demand of rent be all that is incumbent upon a landlord, he can easily humour C. B. without in the smallest degree committing himself, or bringing the other a whit nearer to his object. For example, if a landlord, in obedience to this supposed privilege upon the part of a tenant, asks 500*l.* a year for a farm which is not worth above 100*l.*, what the better is the latter of this boasted right? Fortunately for the landlord, all that is required of him by your correspondent is to make a demand, 'whether high or low is out of the question;' which is only making a great noise about nothing. If he intends being of use to the tenantry of this kingdom in a question with their landlords, he must employ more effectual means to accomplish his end.

In a private transaction between two people, it is very plain, that no business can be done unless the one or the other speaks out. While both remain dumb, it will be impossible to know how much the one expects for his commodity, and what the other may be disposed to give. In this state of perplexity, therefore, one of them must be under the necessity of breaking the ice; but which of them is under the obligation, I suspect will puzzle the greatest politicians of the day with certainty to determine. For my part, I am inclined to think, that the one or the other will speak first, according to circumstances. If the article to be sold is plentiful at the time, the seller will be happy enough to make the demand; and *vice versa*, the purchaser will be every way disposed to make an offer. These matters may very safely be left to the parties themselves; and instead of asserting that the one or the other is bound to make a demand, we may be assured, that the buyer and seller, the landlord and tenant, will very easily arrange their respective privileges, without making any appeal to the original right supposed to be vested in the latter.

Your correspondent seems to have in view only one mode of letting farms, that is, by private bargain, or agreement; but there is another way, by public roup, in which neither party may be said to make a demand nor an offer. A farm is set up at a particular sum, and the highest offerer bears off the prize. I wonder that this mode of letting did not occur to your correspondent, from the great anxiety he seems to entertain for the preservation of what he calls the original rights and privileges of the tenants.

It

It is said by your correspondent, under the first head of discourse, that 'when the country was in a state of nature, and improvements only begun, or beginning, a tenant possessed of sufficient stock, if he got the length of lease that pleased, needed not differ much as to the rent, because he was certain, that, although too dear for the present, his improvements and advance of money would soon make it a good bargain.' This is wholly an assumption; for how, in the name of wonder, could he have known what passed in the minds of farmers in the infancy of agriculture several centuries ago? It is said, that some of our countrymen have the faculty of seeing beforehand what to common eyes is enveloped in the mists of futurity; but this gentleman can, with the utmost ease, transport himself into an age almost out of the reach of history, and predicate the views of people to whom tradition itself scarcely extends.

It is totally impossible for a tenant to prosper without capital, and that professional knowledge by which alone he can execute improvements to advantage. At the time, however, to which your correspondent alludes, there must have been very little money in the pockets of agricultural people, and farming itself must have been at a very low ebb. The farmers, however, of these days, are represented by your correspondent to have been so very sanguine, as to entertain not the smallest doubt of making their fortunes, although their farms might have been too dear at the time they were taken. Now, this is reasoning against all probability; for if those people depended upon capital, and agricultural knowledge for making their fortunes, they trusted to two circumstances which, at the time your correspondent is talking of, could not possibly have an existence. Indeed, it is only of late, and in a very few favourable situations, that any thing of the semblance of improvement has begun to peep out, and show its face to the world.

Your correspondent observes, that farmers needed not to differ much about the rent, although high at the time. This, too, is a supposition totally in the face of all probability. We know well, that, in the early days of agriculture, rent could not in the nature of things be high; and history itself tells us, that at the period alluded to, it was exceedingly low. How indeed could people, not possessed even of capital sufficient to stock their farms, ever pay a high rent? This event can take place only when farmers come to be possessed of capital, and those other requisites which have of late years raised agriculture to the rank of a science.

But if the tenant of those distant ages was certain that, by means of his improvements and advance of money, the farm that

he had just rented would turn out a profitable concern, how much more sanguine in their future prospects ought those of the present day to be! If the trifling improvements of an ignorant and wretched people were to have the wonderful effects attributed to them by your correspondent, how much more so ought the extensive and well directed improvements of an enlightened and wealthy tenantry! That gentleman will not surely have the hardihood to deny the inference; and yet he most unaccountably asserts, that farmers are not now able to pay the high rents which landlords put upon the land.

I apprehend that the rent of a farm, the price indeed of every commodity, is, with reference to the different periods we may be talking of, always the same, although it may, and does vary in arithmetical figures. Taking into consideration the want of agricultural knowledge, capital, value of money, and all those other circumstances which affect to regulate the price of land, I am confident that the rent of a farm in the fourteenth century, though nominally lower, was substantially and really as high as it is at present. Farmers are capable of giving but a certain rent, and no more; and, if we conceive the bow to be bent to the utmost, at two different periods, they can give no more than what the peculiar circumstances of the times can admit of their doing. At a period of agricultural debility, the farmer, let the matter be pushed as far as may be, can give not a farthing more than what he can afford to pay; and, in that of agricultural prosperity, his power of giving is limited by that very prosperity itself. With regard to the tenant, therefore, it is very evident that the *quantum* of rent, though nominally very different, is and must be always substantially the same. It is ridiculous, yet we hear it often said, that it was in former times only that tenants could make money; and that now, from the great rise in rents, it is scarcely possible for the most industrious to keep soul and body together. This, however, is nothing but the cant of ignorance, or weakly sentiment, which either does not know that all periods of the world are in this respect pretty much upon a par, or, from an incapability of enjoying the present, is perpetually dunning our ears with the joys of the past.

In a note, your correspondent says, 'Horses, cattle, sheep, swine, &c. raised upon a farm, find a level in a market, and have risen much in value.' The level of a market I understand to be, that price which is most ordinary and common; and this arises again from the quantity of the commodity and the demand being pretty nearly the same. It never refers to an article which has lost all proportion in either way between its quantity and the demand for it. It is evident, therefore, that this price, being the average

average or medium price, must always be below that of any particular commodity, which happens, from an extraordinary demand, to be very high. Now, the horses, cattle, sheep, &c. of your correspondent, from their having risen so much in value, instead of finding their level in the market, have in fact lost it, by going beyond its boundary. They were formerly on a level with grain; but, from a demand arising from peculiar circumstances, that proportion, which had formerly subsisted between them and all other commodities, came to be lost. Technically speaking, too, when an article is said to find its level, it must fall, and not rise.

Your correspondent says, 'Like the interest of money, it (meaning grain) is in some degree legally prohibited from going beyond a certain extent, and would be kept equally steady, if it were not for the very great difference which bad seasons make in the return of crops.' Was grain actually like money, it would not be merely in some degree, but totally and wholly prohibited from rising beyond a certain height. If money be like grain, on the other hand, the former would only, to a certain degree, be prevented from rising above 5 per cent.; but we know very well, that the laws of this country have made that part of a hundred the legal and invariable standard of interest. To say that the price of grain would be equally steady with the rate of interest, were it not for the great difference which bad seasons make in the return of crops, is just saying, that if the quantity of a thing, and the demand for it, be always the same, the price of it will also be the same. This is a truism of the first order; but does not apply more particularly to grain than to any other mercantile commodity in like circumstances. It appears to us, however, that grain must always be more equal and steady in its real price, than any other production of a farm. The cultivation of it is susceptible of the application in some measure of machinery; and for this reason, while horses and other articles, to which that improvement is not applicable, are perpetually upon the rise, the price of it remains, comparatively speaking, equable and steady. It must not be supposed, however, that a farmer is less a gainer by the cultivation of grain, than by the rearing and feeding of cattle. He may, to be sure, in the latter case, get a higher nominal price than he does in the other; but, when accurately examined, the two will, in that respect, bear an equal proportion. He sells the horse for a greater sum, because the animal cost him more at the market, and the rearing of him is attended with much greater expense. The grain he disposes of at a lower price; because, from the introduction of the thrashing machine, and other improvements in agriculture,

the cultivation of it costs him less than it was formerly in use to do. The difference between the selling price of the horse, and that of the grain, is exactly the difference of bringing the one and the other to market; and therefore, an equal sum of profit is pocketed in both cases.

'Suppose (says your correspondent in the same note) a farm comes into the market, of such quality and size as exactly suits three or four different candidates, all of whom are possessed of sufficient stock, knowledge and agricultural abilities,—every one of them equally capable to produce the greatest returns with the least expense,—will they all offer the same rent? Must not the successful candidate often exceed his own judgement, in order to obtain the possession, from the consideration that such a farm seldom comes into market?' Supposing, for the sake of argument, that all these different candidates are possessed of the essential requisites that have been mentioned, exactly in an equal degree, still it does not follow that, because one of them is succesful, he exceeds his own judgement in giving too high a rent for the farm. If that gentleman does, then he may possess capital, knowledge and agricultural abilities, but he wants what in the conduct of life is worth the whole of them put together. But, is the supposition here made, at all compatible with probability in the smallest degree, like the conduct of people whom he represents to be so very highly gifted with abilities? Is it at all likely that a number of farmers of capital, knowledge, &c. would be deficient in what comes first to a man's assistance upon his entrance into the world? To take such a thing for granted, is to outrage all probability, and to figure, combined in the same individuals, the most opposite and heterogeneous qualities.

But, besides this, it is very plain that a particular farm must, for certain reasons, be more valuable to one person out of a number; and that it is nonsense to say that it is worth just the same rent to half a dozen or more. No two men perhaps in the world were ever found alike; and, in a particular profession, there is always some peculiarity, which distinguishes one practitioner from another. One farmer may possess a certain number of requisites; a second others: but the one or the other will be found to be more adapted for a particular line of undertaking. They may be all men of ability, but, upon a nearer and more close inspection, it will be discovered that their talents have each a peculiar bias or turn. Upon a farm of a particular kind, one of them may be a loser; while the other, had he entered into possession of it, would have made his fortune. For these reasons, therefore, I apprehend that the likeness which your correspondent has

been

been pleased to draw of four different farmers, was merely to serve his present purpose in argument; and that, although one of a number may chuse to give a higher rent than has been offered by the rest, he is in no danger of being ruined by the business.

It by no means follows, of necessity, that the tenant who is preferred to a particular farm, from being the highest offerer, exceeds his better judgement in doing so. Were that the case, the present possessors of farms must be on the high road to ruin. In so doing, he must be a big fool, for he is not under the smallest obligation to give more than what he really considers to be the value of the land. If the landlord be to blame in not making a demand, the tenant is no less culpable in giving an offer. To check this bad practice among landlords, all that a tenant has to do, is to lye-by. By offering, the landlord is confirmed in habits which are represented to be so very ruinous, but which he would have to abandon altogether, were it not for the folly of the tenants themselves.

If the judgement of a farmer can be set aside to make way for necessity; if, being out of place, he must get in at all adventures; if he extends his offer so as to secure the farm, whatever may be the consequences, (I make use of your correspondent's own words), I am much afraid that most of farmers are downright idiots. I have heard, however, that they are not so, and am inclined to think that the picture which this gentleman has drawn, if it be like, is of a few solitary exceptions, rather than of the profession in general. Their folly must indeed be beyond all bounds, if your correspondent has spoken the truth; for what apology can there be for people committing such acts of madness and extravagance as those he has mentioned?

According to your correspondent, 'the very extraordinary difference there is betwixt the offerers for the same farm, points out the absurdity of determining rents in this way.' It is well known, that almost all the land in the kingdom is sold by public roup; and that very frequently, in the offers made, there is a wide difference. But, will your correspondent say, that this mode of selling land is for that reason improper to be followed, or that the letting of it is to be governed by rules different from those practised in a sale?

It is further said, that 'upon almost any article that can be mentioned, if a certain number of men, who are as much conversant in it, as any farmer must be upon his farm, are called to put a value, their verdict, if taken separately, will come nearly to the same amount. It might be expected that the same fair value would be offered by different offerers for the same farm; but that this is not the case, is very certain.' I do not know whether

the confusion of ideas is here intentional. It is obvious, however, that he is here talking of two different kinds of people, who, of course, are regulated by very different principles and modes of thinking. These two classes are valuators of farms, and competitors for them. If a person be employed to value a farm, or, as is the case here supposed, a number, it is natural to suppose, and it will turn out to be the fact, that the general opinion will pretty nearly coincide. Valuators have but one object in view, namely, to ascertain the value of a farm; and, if they be intelligent people, they cannot well go wrong; but competitors for a farm have a very different interest at heart. It is obviously of importance to them to get it upon as low terms as possible; and for that reason, they make their offers as near the ground as they can, with the prospect at the same time of getting the farm. From this mode of proceeding, it is natural to suppose, that there will be a great variety of offers; but, surely it affords no proof of these people either not knowing their business, or of its being an improper mode of letting land. Were these very people employed to put a value upon the farm under consideration, it is probable they would agree in the result, or nearly so; but, being all competitors for the same apple, it is the object of all to undervalue it; and hence the variety of offers.

I shall not pursue this subject any further, for I am only taking up the space of your Magazine. Every man, without exception, ought to be permitted the free use of his own property; and it is the very essence of tyranny to interfere in the smallest degree with the most sacred of all privileges. Upon this principle, every landlord is entitled to let his land in the way his inclination prompts him, even were that mode of management to have all the ruinous consequences attributed to it by your correspondent; and I am happy that my opinion is sanctioned by the practice of the most intelligent agriculturists of the present day.—I am

A CONSTANT READER.

NOTE BY THE CONDUCTOR.

CONSIDERING the above ſtrictures to be unfriendly to improvement, and as tending to ſupport a ſyſtem which ultimately will beggar the tenantry, we cannot ſuffer them to go before our readers, without being accompanied with a few obſervations. In offering the following remarks, the Conductor does not mean to advocate the cauſe either of landlord or tenant, but ſimply to inveſtigate the abſtract queſtion in ſo far as agricultural improvement is therewith connected.

In the *firſt* place, The Conductor ſubſcribes, without reſerve, to the doctrine maintained by his Aberdeenſhire correſpondent reſpecting

ſpecting what that gentleman is pleaſed to call the original right of the tenant to have an offer or demand from the landlord before he opens his mouth upon the ſubject to be treated of. The propriety of this rule is ſupported by the eſtabliſhed practice of every other trade; and a departure from it in any caſe, is evidently calculated to enrich the ſeller at the expenſe of the purchaſer. In every branch of trade, (that of ſetting land excepted), it is an invariable rule, that the ſeller ſhall ſtate his price, which price the buyer either agrees to give, or endeavours to bid the ſeller down, according to the opinion entertained of the market value of the article. All this is fair and open conduct; and gives no advantage to either ſide, unleſs what flows from ſuperior knowledge or greater abilities. But the caſe is very different when land is to be diſpoſed of for a limited period. According to the ſyſtem ſupported by 'a Conſtant Reader,' the ſeller cannot be committed for a moment, till the tranſaction is finally concluded. He ſtands aloof and allows his commodity to be valued by others, without troubling himſelf whether their judgment be ſound or otherwiſe. He pockets the opinions of all; and ſtands upon ground which allows him to influence the mind of each, and to work upon their paſſions in ſuch a way as may eminently ſerve his own private intereſt. In a word, to receive private offers for land, and to ſet it according to the higheſt of theſe offers, may be of advantage to the landlord, but muſt in the ſame degree be injurious to the tenant, from whom the laſt farthing may be ſqueezed, by ſteadily adhering to the ſyſtem animadverted upon.

2dly, Another evil arises from setting land to the highest offerer, which every liberal minded landlord will regard as of importance. Where this practice is strictly adhered to, it rarely happens, that the old tenant can obtain a renewal of his lease, because other offerers bid upon his judgement. Notwithstanding that offers are always kept secret, it somehow or other happens, that they are generally less or more known before a bargain is concluded, which affords opportunity of bidding at the post, and for sanguine people to exceed their original offers. An old tenant is apt to be cautious. He knows, from experience, what the farm can produce, and will not advance his offer, merely because a novice, or some other person who knows no more of the land for which he is offering, than what was gained in walking once or twice over it, has been pleased to outbid him. On this account, private offers must be regarded as unfriendly to agriculture. In fact, the system is calculated to exclude men of judgement and experience from possessing land, and to throw it altogether into the hands of rash adventurers.

3dly, The setting of land by private offers is not of ancient date,

date, and would not have been gone into by the tenantry, had not the candidates for farms become more numerous than the farms that were to be disposed of. This disproportion betwixt candidates and farms, gave an advantage to landlords, and necessarily served to raise the rate of rent; but, viewed in this light, the advantage was a fair one, and no more than what is enjoyed in every market by the seller, when the quantity of the commodity to be sold is below the wants of the purchasers. To increase the advantage above this extent, the system of receiving private offers was resorted to; and it is against this artificial mean of raising rent that we are contending. Let us put a parallel case, and leave the inference to others. Suppose that farmers, seven or eight years ago, when grain was very scarce, and prices uncommonly high, had refused to fix a price upon grain, and determined to sell only to those who made them written proposals. No doubt, in this way, an article, already high priced, might have been raised still higher; but, would the conduct of such persons have been considered as laudable and praiseworthy? Certainly not; and yet it might have been defended by arguments drawn from almost every page of the paper we are now commenting upon.

4thly, The author seems to think that the tenant would not be benefited by the first word coming from the landlord, because the latter might make an unreasonable demand. We grant that he might,—though unwilling to suppose that any landlord would adopt such preposterous conduct. Does the seller of corn or cattle who demands a ridiculous price for his commodity, obtain more than the seller who seeks a price something like the fair market value? No, he never does. Such are laughed at in the first instance, and ultimately sell for less money than their more prudent neighbours. The landlord who imitated their conduct, would not fare one whit better.

But, why libel the landowners by supposing that any one of them would adopt a practice calculated exactly for the meridian of fishwives? Is it not more probable, certainly more creditable to suppose, that those unacquainted with the value of land, would call for the aid of a skilful surveyor, and, from his report, form an opinion concerning the worth of the article they were going to offer in the market? By a plan of this kind, the right of the landlord to chuse his own tenant would rather be strengthened than impugned. He may set his land to whom he pleases, much more effectually, and upon sounder principles, than can be done under the system of receiving private offers.

5thly, 'Who bids more,' may be a good enough way to ascertain the value of an article at the time, or even for fixing the rent

rent of a grass park, which is only to remain with the farmer for a season; but we doubt if it can be depended upon as a sure criterion for determining the value of land for 19 or 21 years, the ordinary period of Scottish leases. To value land is at all times a difficult and abstruse business, because many circumstances must be taken into consideration, besides the quality of the soil under view. A surveyor of sense and experience may come pretty near the worth of land at the time; but no man can speak to its after worth, because that depends entirely upon contingencies which cannot be calculated upon. Our author, however, seems to believe, that the value of an acre of land may be estimated as exactly as that of a guinea; otherwise, why does he maintain that the man is a fool who takes land above its value! Now, the precise value of land cannot be ascertained, because it depends altogether upon the value of produce, which is incessantly varying. For a dozen of years back, offerers have trusted a good deal to what is called the growing prosperity of the country, and they have not been disappointed; but, if the country should not continue to increase in prosperity, nay, if it should remain merely stationary, what is to become of those who have of late acted upon this principle? Much might be said on this head; but we forbear from urging it.

6*thly*, We are inclined to believe, that the reasons stated by our Aberdeenshire correspondent, as influencing offerers for land to differ so widely in their respective estimates, are cogent and well-founded. We have seen them exemplified in numerous instances; and believe, that the reason why they have hitherto not proved fatal to those concerned is, that an advance of the value of produce has taken place, which, with some truth, may be considered as corresponding with that which land rent had previously experienced.

Lastly, It no doubt may appear foolish conduct for any person to offer a higher rent for a farm than he thinks it capable of paying; but every person of common observation knows it is done every day, though, from the circumstances already mentioned, the probable consequences at the time have been fortunately averted. It is very well for our correspondent to sit in his room, perhaps in his easy chair, with every comfort around him, and to say the rents offered for land cannot be too high; that the fellows are capable of paying them, otherwise they would not make such offers. But we beg him to reflect upon the actual situation of an offerer in numerous cases. He is out of a farm; the interest of his capital stock may not be sufficient to make him and his family live. He sees other people doing well, who offered, not only above their own judgment, but also above that of the whole country; and therefore, boldly determines to exceed the highest offerer,

offerer, thinking that he stands a chance of experiencing the same good luck fortunately gained by others similarly circumstanced. This is the rule of conduct now adopted; and can scarcely be blamed, because it cannot be avoided. The farmer stands precisely in the situation which the purchaser of corn occupied in 1799 and 1800. With the like truth, the purchaser of oat-meal might then have been blamed for giving fivepence and sixpence per pound weight for an article which is not often above one third of these sums. Had the purchaser been blamed, he probably would have replied, that he could not starve; therefore, was obliged to buy it at the market price; and so must the farmer reply to the person who characterizes him as an idiot for taking land above its real worth. But the farmer has a better excuse to urge. He knows that the value of land has increased, is increasing, and *probably* will not be diminished: therefore, under the influence of the passion of *hope*,—a passion which influences mankind more than any other, he gives up his judgment, and concludes, 'that the value of any thing is just exactly what it will bring.' In many modern sets, it is evident that no other principle guided the taker; but, whether landed proprietors consult their permanent interest, by receiving private proposals for land from such people, is a question which we do not venture to determine. Assuredly, however, the interest of agriculture is thereby sacrificed, as may, at an after period, be completely exemplified. N.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On Burning Stubble, &c.

Sir,

It may perhaps admit of more difficulty than is generally supposed, how to decide properly the question, whether the ashes of a burnt vegetable, or the same vegetable reduced to a state of putrefaction, afford most nourishment to plants.

In the southern parts of China, two crops of corn are every summer taken from the same field; and we are informed by Sir George Staunton, that the stubble of the first crop is universally burnt as a manure for the second. In the interior of Africa, also, we are told, that the principal manure which a field, destined to be sown with corn, receives, is derived from what vegetable substances are burnt on the spot. And, in this country, we have often seen the wonderful effects of paring and burning the vegetable roots of the surface soil in promoting vegetation.

I am led to these remarks, from observing, in the Fourth Volume

lume of the Communications to the Board of Agriculture, a letter from Mr William Curtis of Lynn, Norfolk, wherein he says, he has tried several experiments, which show that the burning of stubble enriches greatly the fields for the ensuing crops, as well as renders them cleaner by destroying the weeds.

Another gentleman, in the same volume, Mr William Pontey of Huddersfield, ascribes the advantage of burning straw on fallows to the effect of heat. He thus describes a case that fell under his own observation.

'A neighbour of mine has a mill where he shells a considerable quantity of oats, the husks of which he was used to burn, and to spread the ashes upon his grass lands; but their effects were only observable for one season, and were by no means considerable; within the last ten years he has fallen into the practice of spreading the said husks upon his fallow when it is dry, to the depth of six or eight inches. To these he sets fire as soon as the wind is favourable; and though the quantity of ashes left be trifling, the article being very light, yet the soil is uniformly so enriched, that though no other tillage be applied, the burnt part is distinguishable from what was tilled with either lime or dung. To these effects, I have for several years been an attentive observer of the benefit for four following crops.' A. S.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Loose Hints respecting the Character and Conduct of Farmers Thirty or Forty Years ago.

SIR,

WILL ye allow a plain old fashioned country man to try his hand at a letter for your Magazine? Though not altogether unacquainted with books, (for I had always a turn for reading when books came in my way), yet I am very unskilful in composition, and know little or nothing about what, I believe, your learned folks call the 'collocation of words;' or the proper rendering of a period. Trusting, however, to you for a little brushing up where needful, I will proceed without further preface.

Observing frequent attempts in your work, to compare the state of agriculture and the manners of agriculturists in the present times with what they were thirty or forty years ago, I beg leave to send for your insertion, if deemed worthy of it, some rude hints on the same subject.

In my early days, Mr Conductor, there was more simplicity, more unostentatious hospitality, and a great deal more appearance of piety, than what is now to be seen among farmers. The change,

change, you will no doubt say, is the natural consequence of increased opulence, and more successful industry; and I am by no means disposed to dispute the point with you. Allow me at the same time to suggest, that the change, upon the whole, is unfavourable, and gives but too much reason to dread, that the real strength of the nation is upon the decline; and that it is therefore the duty of every person who has a spark of patriotism in his composition to try to check the growing evil. But I find I am rather digressing from my subject, and hope you will kindly excuse the occasional 'garrulities' of an old man. Forty years ago, almost every young farmer was as well skilled in the operative part of farming as any servant his father had. He went, for the most part, regularly to the plough; bore an active hand in sowing and dighting the corn, and in the labours of hay time and harvest. Not that his whole time was occupied in manual labour; for, if he had a turn for reading, his propensity might be freely indulged in the numerous avocations incident to the profession of a farmer; and, in general, I believe, it will be found that reading will be prosecuted to as great advantage in the intervals of moderate labour, as when it is made a more constant employment. Nor was the young farmer without his social intercourse and innocent recreations. Well do I remember with what buoyancy of spirits we used to enjoy our social meetings, and how the body, braced and invigorated by moderate toil, performed its functions so cheerily, that our days glided away in such peace and happiness as the idle and dissipated have no idea of. At that time, too, it would have been thought perfectly disgraceful to be habitually absent from church. The old farmers, in general, made a point of not only going regularly themselves, but taking their whole family with them, both forenoon and afternoon, and concluded the day of sacred rest by instructing their children and servants, and in devotional exercises. However, regard to truth forces one to acknowledge, that on market days, adherence to rigid temperance was more frequently forgotten than could have been wished. The truth is, that the beverage at that time most commonly drank when business was transacted, had a more intoxicating quality than the liquor now used; especially, as was often the case, when it was taken into an empty stomach, for the farmers in those days did not always dine in the market town. In this case, a glass or two of spirits and a bottle of ale, taken either separately, or mixed into 'poppin,' would sometimes fluster the old farmer, and send him home in a very talkative humour to his family. So much then for the character of a farmer forty years ago. It is but a rough sketch; but I have no inclination to occupy too much of your useful work, having little ability to do it to good purpose.

It

It would be a very invidious taſk to contraſt the character of the modern farmer with the above; and although there are ſtill a good number whoſe characters, in every reſpect, would not ſuffer in the compariſon, yet I am much afraid the generality would fall far, very far behind, in ſome of the points ſtated above. Let me therefore conclude with a word of advice to ſuch of them as are juſt ſtarting their farming career; and as what I have to ſay is the reſult of experience, I earneſtly beg their attention to it. Endeavour to think and act for yourſelf. Follow not the cuſtoms and habits of others, any further than reaſon and prudence approve. Cultivate a taſte for ſimple and unexpenſive pleaſures; and teſtify, by your behaviour, that you underſtand wherein the true dignity of man conſiſts.

If my ardour for ſcribbling is not damped by the rejection of this paper, I ſhall perhaps, at ſome future opportunity, ſend you another on the ſtate of huſbandry thirty or forty years ago in this county. I am, yours, &c.

East Lothian, January 2. 1808. RUSTICUS.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Information requested concerning the Process of Charring Peat.

SIR,

I SHALL be glad to be informed, through the medium of your Magazine, of the proceſs of charring peats, in order to uſe the aſhes for manure, as practiſed in ſeveral of the inland counties of England.

So far as my information goes, I am much inclined to think, that, in many parts of Scotland, where peat moſs of the proper quality prevails, the aſhes of peats might be obtained at a very ſmall expenſe, and that the application of them as manure would be attended with great effect.

If any of your correſpondents can favour me with a ſtatement of the expenſe of labour, and the quantity of peats which one hand can turn and burn in a ſeaſon, it may aſſiſt myſelf and others to form a tolerably correct eſtimate of the expenſe of a trial. I am, Sir, yours, &c.

Glaſgow, 1808. A. B.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Deſcription of a Feeding Byre in the County of Kent.

SIR,

IN your uſeful Magazine, vol. III. p. 8. and vol. V. p. 300., I find accounts given of the Eſkmount and Roxburghſhire feeding byres;

byres; and as one, which, for the reaſons after mentioned, I think preferable to either of them, has lately been erected at Park farm, Eltham, Kent, by a Cumberland farmer, who took a leaſe of that farm about ſeven years ago, I ſhall, for the information and benefit of your numerous readers and of the public, endeavour to deſcribe the ſeveral parts thereof in as conciſe and intelligible a manner as I can.

The building is 113¼ feet long, 30 feet wide, and 20 feet high under the footing beam, having a floor raiſed ſeven feet above the cattle, by which means a barn is obtained above, as well as a byre below. The byre holds 64 cattle in two rows, their heads facing each other, and between them is a gangway 4 feet 4 inches wide, for the feeding man. At the heads of the cattle are cribs, and a rack for hay; behind which is a ſoletree, with ſteps 2 feet 10 inches high, which goes into a railing before the heads of the cattle; and behind this is another railing, with boards nailed to it 10¼ inches wide at the top, and let into the ſoletree at the bottom, ſloping into the gangway, which leaves 2 feet 7 inches at the top of the racks for the gangway. There are ſix ventilators on each ſide to let out the breath and heat of the cattle, and three doors at each end of the building, viz. one at each end of the gangway, and one at each end of the two grips, which deſcend regularly from each end to the centre. Another gangway 3 feet wide croſſes the middle of the byre, having a deſcent from the back of the building, which conveys all the urine of the cattle into a reſervoir in the front, where the dung is depoſited. This gangway interſects the grips and the middle gangway, and divides the byre into four equal parts, each holding ſixteen cattle. A *to-fall* for calf-pens is built againſt the back part of the byre, near the centre of it, with a door of communication, by which the calves may go to their dams. There are alſo *to-falls* erected in the front of the building, one of which ſerves as a dwelling-houſe to the cowman, another is for holding a cart, a third is uſed as a milking place, and a fourth contains a boiler for heating water, to ſcald milk veſſels, or for boiling any ſort of food for the cattle. There are alſo three convenient bed-rooms above theſe *to-falls*. The building is on ſloping ground, the earth being high on the outſide of the back wall, which enables the carts to come eaſily into the barn with the different ſorts of food for the cattle. The barn holds as much hay as will ſerve for the winter, excluſive of a room for grains, turnips, potatoes and cabbages, which are carted into the barn, and let down by five trap-doors into a little waggon with four wheels, which the cowman puſhes along the gangway, to feed the cattle on each ſide.

The advantages derived from a barn and byre of this conſtruc-

tion,

tion, are, 1. That one man can, with ease, feed the whole sixty-four cattle five times a day, turn them out, clean the house, take up the cattle again, and, besides, milk twelve cows twice a day, and suckle as many calves. 2. That the whole of the hay necessary for winter consumption, can be carted in small quantities as got ready, without being long exposed to injury from rain, and deposited in the barn, where neither the breath nor stench of the cattle can come to corrupt it; and lastly, that green food, for soiling cattle in summer, can be deposited there, without being exposed to the influence of the sun.

The plan of this building will therefore, I trust, be presented to the numerous readers of your useful Work, who will judge of the comparative utility of the different plans; and the writer will find himself particularly gratified, should any improvements be suggested. Yours truly,

January 29th, 1807. A KENTISH GRAZIER.

Note. Should a plan of the byre above described be sent us, we shall endeavour to have it engraven, and presented to our readers in a subsequent Number. If one man executes all the work mentioned, we must say that he is not an idle one.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Remarks on R r r's Diagram and Demonstration of the efficient Length of Lever of Horses, &c. *drawing in a Circular Walk by Swing-Trees.*

SIR,

IF the proverb 'Silence gives consent,' be founded in truth, we muſt, after a lapſe of almoſt three years, ſuppoſe, that yourſelf and the numerous readers of your valuable Magazine, reſt ſatisfied with R r r's diagram and demonſtration of the efficient length of lever of horſes, &c. drawing in a circular walk by ſwing-trees. Repeatedly ſchooled by R r r, your correſpondent T—t became very complaiſant, and ready to pin his mechanical faith to that gentleman's ſleeve. He did right, however, in declining his bet of a rump and dozen on the terms on which it was offered; as, by the qualification '*general principle, not abſolute quantum of loſs by obliquity*,' R r r ſeems to propoſe ſomething like what is commonly called *a bubble bet*; for, by the qualifying expreſſion 'general principle,' &c. he is ſuppoſed to mean, merely that there is *ſome* loſs of lever in drawing by ſwing-trees in a circle; a propoſition ſo ſelf-evident, that it may be conſidered a mechanical axiom. Had it, then, been ſubmitted to the learned Pro-

feſſor of Natural Philoſophy of this or any other univerſity, it would probably have been anſwered by a ſmile, not expreſſive of the higheſt reſpect for the party who might have had the hardihood to lay '*the queſtion at iſſue*' before him.

As the fire produced by R r r's 'flint and ſteel,' is rather too much enveloped in ſmoke, to afford light to your readers to enable them to draw old Lady Truth out of the well, which, the ſong ſays, ſhe has choſen for a habitation, it is here intended to attempt the taſk, and to ſhow, that, whether *general* or particular, the principle on which R r r endeavours to demonſtrate the loſs of lever, is a falſe one; and that the quantum of loſs, inſtead of being *near* three feet, as is ſaid at page 195, vol. vi.;—or, as is ſaid at page 19, vol. v. *at leaſt* three feet,—is, in reality, under nine inches.

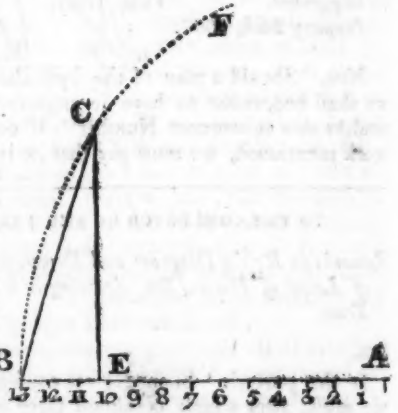
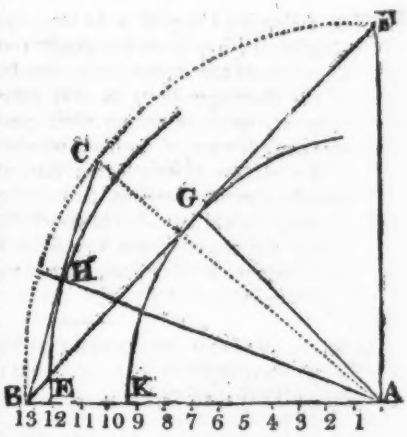


Fig. 1. R r r ſays, 'take A the centre of the horſe wheel, and A B as the entire efficient length of the ſtart or lever upon which the horſe acts, in traces faſtened to the loop or eye at B. The dotted arc B F is part of the circle in which the horſe draws. Suppoſe C to be the centre of the horſe's draught, or the point between his ſhoulders, and removed in conſequence of the length of the trace, ſwingle-trees, &c. 8½ feet from B, the point of the lever to which he is attached. Let fall the perpendicular C E from C, the point of actual draught, to E upon the lever, or ſtart. Now, I affirm (ſays he), the horſe drawing obliquely from B, in the line B C, exerts a power exactly equivalent to what he would poſſeſs if drawing directly perpendicular to A B in the line E C, which reduces the efficient length of the original lever A B to A E; and if we ſuppoſe A B 13 feet, B C 8½ feet, A E will be only a little more than ten feet;' which makes three feet nearly cut off, according to R r r, 'from the original lever A B;' whereas the real loſs of lever is under nine inches, viz. .72 of a foot.

Fig. 1. The perpendicular C E cannot exiſt; as the line A B is not the baſe of the plane of reſiſtance. By falſely aſſuming this perpendicular, R r r makes the reduced lever A E ten, or nearly ten, feet, which ought to be 12.28 feet.

Fig.

Fig. 2. B A C is the resisting plane, and A that angle where the resisting power is. According to the laws of mechanics, B C is the base of that plane, and by the same laws A H: a line at right angles to B C, the base of the plane of resistance, is *the lever which may be made to act against the resisting power at A.* If, through the point H an arc H E be made, with radius A H, the length of A E will be equal to that of A H, which is 12.28 feet. Q. E. D.



Let us suppose that R r r had extended his traces, so that the point of draught is at F in the line B F, then F A would be his perpendicular, and, *a priori*, there is *no* lever. But even at this point there will be a lever of 9.2 feet. Let fall the perpendicular A G, and with this radius make or describe the arc G K, and A K is equal to A G the length of the lever, which may be demonstrated as the preceding.

To calculate the Length of the Lever.

As A H B, Fig. 2. is a right-angled triangle, the square of the hypothenuse A B, minus the square of one of the sides B H, is equal to the square of the other side A H, the square root of which is the length of the lever; that is, from the square of the start A B, subtract the square of half the length of the traces, &c. B C the square root of the remainder, is the length of A H or A E the length of the lever.

Example.

A B 13 feet ſquared, is - 169.
The half of B C 8½, is 4.25; which, ſquared, is 18.0625

150.9375 (12.28 the lever.
1
22) 50
44
242) 693
484
2448) 20975
19584
1391, &c.

I am, your moſt obedient ſervant, JOHN SHIRREFF.

[The following Copy of a Lease, drawn up by a respectable Gentleman, has been obligingly communicated to us; and observations thereupon are respectfully requested from such of our Correspondents as may have made that useful and necessary mode of tenure their particular study. At a future period, we may, perhaps, offer some remarks upon several of the clauses of this lease; but, at present, shall content ourselves with observing, that the last one, viz. that all differences should be referred to arbitrators, is highly salutary, saving the tenant from vexatious litigation in law courts, often ruinous to his purse, and always distressing to him as a private individual.]

IT IS CONTRACTED AND AGREED on between on the one part, and on the other part, in manner following: That is to say,

The said in consideration of the rent and other obligations after mentioned, prestable by the tenant, has set, and hereby sets, and in tack and assedation lets to the said and his heirs, whether of line or by appointment, under the condition after mentioned, but always without division, and secluding assignees, whether legal or conventional, and subtenants of every description, All and Whole the

but with and under the following reservations and conditions, viz. Reserving to the proprietor power to search for, win, and work, all metals and minerals, in any part of the said lands, and to sell or apply the same to his use, and also to make roads requisite for such, or other purposes, he always paying to the tenant for any surface damage thereby done to the grounds, as the same shall be ascertained by two neutral men mutually chosen, and, failing such choice, in manner after mentioned; as also, reserving to the proprietor power to allocate such parts of the mosses in said farm as have been hitherto in use to be dug or cast for peats, and that to such of the other tenants or pendiclers on his estate as he shall think proper; and in case, during the currency of this lease, the said shall think proper to resume possession of the said mosses, for the purpose of improving or planting the same, then, and in that case, it shall be lawful for him so to do, upon granting to the tenant allowance out of his rent of the yearly value thereof, as the same shall be ascertained by men mutually chosen, and failing such choice and adjustment in manner after mentioned, it being always optional to the said to relinquish the said resumption, after valuation thereof, but before taking possession;

posse sion; Reserving also power to make such alterations on the marches between the said lands and those adjoining, as he shall judge proper; it being hereby provided, that the annual value of any ground thereby taken from or added to the farm, shall be fixed by men to be mutually chosen, and the same shall be deducted from, or added to, the rent accordingly: And reserving power, at any time during the first years of this lease, to make such subdivision and other fences as the proprietor shall judge proper, the tenant being always bound to pay, in addition to his rent, at the rate of 6 *per cent.* on the cost thereof, in manner herein after specified: And, further, reserving right, at any period during the currency of the lease, to assume possession of any part or parts of the lands hereby set, which the proprietor shall choose, for being planted with trees, providing that the ground so taken shall not exceed Scots acres; and that the tenant shall be entitled to a deduction from his rent, at such a rate for each acre planted, as shall be settled by neutral men to be mutually chosen, and failing such choice and adjustment, in manner after mentioned; the proprietor being bound to enclose, at his own expense, the lands planted, and the tenant being bound to take care of and pay one half of the cost of repairing the fences thereof afterwards, the said paying the other half, in so far as they do not constitute fences of the farm enclosures: Further reserving the liberty of cutting and carrying off all or any trees on the hedge, banks, or elsewhere; also, all game and fish in the premises, with the sole privilege of fishing, sporting, and hunting, by himself, his gamekeepers, or others, having his authority in writing: And if at any time the said houses, fences, gates, and drains, shall be found in disrepair, the proprietor shall have power to cause the same to be put in proper order, and to charge the tenant with the expenses thereof, unless he, the tenant, shall execute such repairs within one month after being required so to do by a notice in writing. But the present tack is granted under this condition always, that if the said or the heirs succeeding him in this lease, shall become bankrupt in terms of the act of Parliament of the 33d year of his present Majesty, or any subsequent act of the same nature; or shall execute any voluntary trust-conveyance of his property for behoof of creditors, and on account of inability to pay his debts; or if, by allowing the rent and other sums of money hereby contracted to be paid along with the rent to run into arrear, for one whole year together, the said or his foresaids, shall suffer a sequestration to be applied for and awarded against him or them; then, and in every such case, this lease shall, at the option of the proprietor, be rendered null and void, and he shall be at full

liberty, and hereby has right, to assume possession of the premises hereby let; and the said in that event, for himself and his foresaids, hereby renounces the possession, and consents that summary diligence shall pass for removing him or them from the possession, in the same manner as if this lease had expired by the lapse of the full term thereof, and this without prejudice to all action and legal remedies competent under the act of sederunt 1756, or otherwise, conform to the public law. Which tack the said , under the reservations and conditions before mentioned, binds and obliges himself, his heirs and successors, to warrant to the said and his heirs, at all hands, and against all deadly, as law will. For the which causes, and on the other part, the said binds and obliges himself, his heirs, executors and successors, to pay to the said , his heirs or assignees, or to their factor or chamberlain for their behoof, the sum of of yearly rent for each year's possession, at the terms following, viz.

and so on to continue the payment of the said rent thereafter, at the said two terms, during the currency of this lease, excepting the last year, with a fifth part more of liquidate penalty in case of failzie; and annualrent, after the respective terms of payment, during the not-payment: But declaring always, that the rent to become due, in virtue of this lease, for the last year of the said term of years for which it is granted, shall be due and payable, one half at the term of Lammas immediately preceding the termination of the said years, and the other half at the term of Martinmas next following, being the term of removal from the farm, with penalty and annualrent as effeirs. And further, to pay, in addition to the said rent, at the rate of 6 *per cent.* annually, of such sums as shall be laid out by the proprietor in building houses, and in forming fences or enclosures during the first years of this lease, not exceeding the sum of L. for houses, and L. for forming fences on the said farm, and that half-yearly, along with his said rent at the terms above specified; commencing the payment of said additional rent at the first term after such buildings and fences are completed, and the expense thereof ascertained. As also, if desired, to furnish and deliver yearly, between Christmas and Candlemas, the whole victual and meal stipend, payable for and forth of the said lands to the minister of the parish of , the proprietor being obliged to make allowance out of his rent, at the rate of the county fiars, for the quantity of grain and meal so delivered: And likewise, to perform the requisite services to the high and parish roads exigible for the said farm, annually, or to pay the conversion of the same

when

when due, without allowance. Further, the said
obliges himself and his foresaids, that they shall adopt and observe, during the currency of the lease, the following mode of culture and cropping the said lands, viz. They shall not have, at one time, more than one half of the whole arable and usually tilled lands, under a white crop of grain, such as wheat, rye, barley, or oats; and, in no case, shall take more than two of such crops in close succession, from the same ground, or without the intervention of a grass or herbage crop, or else a hoed crop of potatoes, turnips, cabbages, beans, or any other such hoed crop as may suit the situation, or else a summer fallow; which hoed crops, or fallow, shall be properly tilled and manured; and shall not have, during the last four years of the lease, two such white or corn crops in close succession, but only one of such alternately, with an herbage, a hoed crop, or a summer fallow, in his, the tenant's option; and that, in regard to the management of the farm towards the end of the lease, they shall cultivate properly the following proportion of the usually tilled land, in the following manner, viz. In the third year, before its termination, they shall cultivate and have not less than one sixth part of these lands under a summer fallow, or some of the hoed crops before mentioned, and shall give then, this said proportion, full tillage, and a due supply of dung, or putrescent manure; and, in the second year, shall have this sixth part under corn, and along with such crop shall furnish and sow in proper seeds for hay or pasture, which part shall not afterwards be ploughed or broken up by them: As also, shall have in the said second year, before the end of the lease, not less than another sixth part in summer fallow, or under a horse hoed crop, to be properly dressed by tilling and manuring as above; which sixth part shall be under corn in the last year of the lease; and, along with this crop, grass or herbage seeds, of a proper assortment and quality, shall be procured and sown by the tenant, unless the proprietor shall give three months notice to the tenant, that he is himself to furnish and sow in the herbage seeds; and, in either case, the tenant shall properly harrow and cover in the same, and shall afterwards preserve the lands so sown from being hurt or pastured by live stock of any kind, during or after harvest: And further, in the last year of the lease, they shall not have less than another sixth part of the arable lands, under either a summer fallow, or some horse hoed crop, dressed as above; for which grass, or herbage seeds sown in the last year, and for the cost of the tillage and leading out the manure to the summer fallow, and the value of the hoed crop, likewise of that year, the tenant is to be paid by the proprietor, at the arbitration of neutral men to

be mutually chosen; or, failing such choice and adjustment, in manner after specified: And further, the tenant shall allow the proprietor, without recompense, to sow grass seeds with all or any of the other white crops, in the last year of the lease, he, the present tenant and his foresaids, being bound to harrow and cover them in properly, and, after reaping the corn, shall not pasture, but preserve from injury, the young herbage. And the said also obliges himself and his foresaids, during the whole currency of the lease, to manage the farm in a proper husbandman-like manner, for the mutual advantage of all parties; and in order duly to sustain its productiveness, not to sell or send from it straw, hay, potatoes, turnips, or any other species of produce, excepting corn, and excepting, in the last year of the lease, the potatoes, hay, and unthrashed corn and straw of that crop and year, without previously obtaining the consent of the proprietor, or producing to him or his factor satisfactory evidence that they have elsewhere procured in lieu thereof, and have expended on the lands, that or the preceding year, a proportion of common dung or putrescent manure, fully equivalent to what the articles so disposed of would afford, were they consumed on the possession. Further, the tenant shall not raise lint, or any other such crops for the purposes of art, as afford little, if any, manure, without obtaining the consent of the proprietor, or producing to him or his factor satisfactory evidence that he has procured elsewhere, and expended on the lands bearing such produce, that or the preceding seasons, an additional and equivalent supply of manure, not less in proportion than what would be acquired from the straw of a corn crop, if such were then raised, according to the opinion and decision of neutral men, to be mutually chosen. It is also expressly stipulated and agreed to, that if the tenant shall depart from the regulations before specified, to the treatment and application of the lands, he and his foresaids, in that case, are bound hereby to pay the sum of Sterling of additional rent for each acre treated, or each crop taken, differently from the mode before mentioned; which additional rent shall not be considered as penal but as pactional; and which the said hereby obliges himself and his foresaids, to pay to the said and his foresaids, at the same terms with the original rent of the year, or years, in which such alteration takes place, with the like interest and penalty in case of failure: And for the purpose of ascertaining the fact of any deviations that may be made in the before stipulated plan of culture and cropping, and the amount of the additional rent thereby due, the parties oblige themselves to enter into a submission, within three months after the one shall be required, in writing, to do so

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by the other, to two neutral men mutually chosen; and the determination of such arbiters shall be final. Further, the said obliges himself and his foresaids, in order both to defray any loss or damage that may happen to the houses on the possession from fire, and to assure to the proprietor an equivalent for the right of hypothec over the crop, in case of any loss thereof occasioned from fire, to insure, on their own expenses, in the , or some other insurance office, to be approved of by the proprietor or his factor, or agent for the time, the whole houses built or to be built on the said farm, to the extent of Sterling; and likewise the crop in the barn or barn-yard, or elsewhere, and the live stock in the offices on the lands, at a sum not less than one year's rent of the said farm, or at least not less than the fair value of the crops and live stock, if that value shall be under the said rent or yearly return of the farm to the proprietor, and to pay regularly the premium for such insurance during this lease: the policies of which insurance, and the money that may become due thereon, in case of accidents, the said obliges himself and his foresaids, when required, to assign and transfer to the proprietor, with full power to him to recover and apply the same towards defraying the loss sustained on the said houses, and discharging the rents due at the time, and for the current year. Further, the tenant is hereby taken bound to warn off from his farm, all sportsmen, excepting such as are permitted by the proprietor, and to suffer them to be prosecuted in his, the tenant's name. And the said obliges himself and his foresaids, to leave upon the farm, at the expiration of his tack, the hay and fodder of the last or preceding year's crop that shall not be consumed by his live stock, or shall not have been sold by him in the form of unthrashed corn or growing crop, previously to his removal, and likewise his crops of turnips or cabbages raised in the last year of the lease; for all of which he is to be paid by the proprietor, or incoming tenant, according to the valuation to be made by two neutral men mutually chosen; or, failing the election of such men, or their ascertaining the price of the commodity, the same shall be ascertained in the manner aftermentioned. Also, to leave the whole dung or manure that shall be on the said farm at the time of his removal; one half of the value of which, as the same shall be ascertained by neutral men as said is, the proprietor shall be bound to pay to the outgoing tenant. Moreover, the said obliges himself and his foresaids, to furnish the carriages of the whole materials that may be laid out on building or repairs on the premises, and to maintain and keep in good condition, during the currency of the lease, the whole houses, drains, or water-courses, fences

fences and gates, on the said farm, and to leave them in a proper state of repair at his removal; the proprietor paying the moiety of maintaining such fences as are required thereby for new plantations as above mentioned; and also, to protect the trees planted, or to be planted on the lands; and, failing his doing so, to indemnify the proprietor for any damage incurred by his fault or neglect, at the arbitration of neutral men, to be chosen as said is; and, failing such choice, to be ascertained in manner after mentioned; and likewise to repay to the proprietor, all such expenses as he may have laid out, in virtue of the reserved power before mentioned, in repairing such houses, drains, or water-courses, fences and gates, and that from time to time as the same shall be incurred, on production of the tradesmen or workmen's accounts or receipts, without further proof. And the said obliges himself and his foresaids, to flit and remove from the said possession, at the expiry of this tack, without any warning or process of removing to be used for that effect. And in regard that, by this tack, several references are made to arbiters to be mutually chosen, and that inconvenience may arise from either of the parties refusing or delaying to name an arbiter, or that such arbiters may differ in opinion as to the matters referred to them; therefore, it is hereby specially provided and agreed to by the parties, that in all cases in which any difference, and about which it is in general hereby covenanted, reference shall be made to arbiters mutually chosen; then, and so often as such event may occur, the parties bind and oblige themselves to each other, that they will enter into, and subscribe, a regular, valid, and formal submission, to arbiters, to be mutually chosen by them, with power to name an oversman, containing all clauses usual and necessary for rendering the said submission and decreet-arbitral to follow thereon effectual; and in the event that either of them, or their foresaids, shall refuse or delay to name an arbiter on his part, for determining anent any of the matters herein contained, which are made the subject of arbitration, within one month after being required in writing by the other party so to do, it shall be competent for such other party to apply to the Sheriff-depute or his substitute, for the time being, of the county of , to nominate an arbiter to be conjoined with the one named by the party so applying; and which arbiters, so named, shall have the same powers as if they had been mutually chosen by the parties themselves: And that in all cases where the arbiters, whether named by the parties themselves, or by one of them and the Sheriff, shall happen to differ in opinion as to the oversman to be named, it shall, in like manner, be competent to both, or either of the parties, within ten days after such difference or refusal,

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to apply to the said Sheriff to nominate an oversman for that purpose, whose determination shall be final, and shall be equally binding on the parties, as if such oversman had been named by arbiters mutually chosen by the parties. Declaring hereby, that in the above mentioned cases, where applications may be made to the Sheriff for the nomination of an arbiter or oversman, the power of making such a nomination is implicitly committed to, and vested alone in, the said Sheriff-depute or substitute, to be exercised by either before whom the application may first come, and in such manner as he shall judge proper; and that it shall not be competent to either of the parties to bring such nomination under review, or to make it the subject of any law proceedings, either in the said Sheriff's court, or in any other court whatever. And both parties bind and oblige themselves and their foresaids, to implement the premises to each other, under the penalty of Sterling, to be paid by the party failing, to the party performing or willing so to do, over and above performance. And they consent to the registration hereof in the books of Council and Session, &c.

FOR THE FARMER'S MAGAZINE.

Account of the Husbandry of Stirlingshire.

STIRLINGSHIRE has never been distinguished for the industry of its population, or the perfection of its husbandry. At some future period it will probably possess stronger claims to notice, if we can now form any judgment from its local advantages,—an improveable soil, an inexhaustible supply of minerals, and an easy access to the most favourable markets.

This county is situated in the central district of the kingdom; is accessible, independently of the Great Canal, by navigable rivers from either sea; and is contained, partly in the Highlands, and partly in the Low Country of Scotland. Its length, from east to west, is about 50 miles; its breadth, from south to north, at a medium, will not exceed 16; and its area is supposed to contain about 794 square miles; or, 358,336 Scotch acres—the superficial measure used throughout the county—equal to 450,560 English acres. On the east it is bounded by West Lothian; on the north by the counties of Perth and Clackmannan; and on the west and south by those of Dunbarton and Lanark.

The general appearance of Stirlingshire is marked with the same features which characterize the central district of Scotland. The Grampian mountains, which form a continuous ridge from Dunbarton on the west, to Aberdeen on the east coast, cross and occupy the north-western extremity of this county. Throughout its whole extent, this ridge is accompanied by another on the south,

south, of smaller breadth, and of inferior elevation. As the continuity of the latter is frequently broken by the large rivers which rise on the southern descents of the Grampians, and flow into the German ocean, it has never been distinguished by one common appellation. One part, situated between the rivers Esk and Tay, and contained principally in the county of Forfar, is called the Sidlay hills; another, included in Perthshire, between the Tay and the Forth, is called the Ochills; and the last, crossing the middle of Stirlingshire, and lying between the Forth and the Clyde, was anciently called the Lennox hills, because it was situated chiefly on the earldom of that name. This range, at present, has no common name: but as the Campsie hills are situated in the centre, and are the most considerable in point of extent and elevation, that appellation may be conveniently extended to the whole district. The intervening space between those parallel ridges, which cross the whole kingdom, varies in breadth from five to fifteen miles. Though the surface of this tract is diversified with rising grounds, yet these eminences are generally inconsiderable, and 'hide their diminished heads,' when compared with the lofty mountains on either side. From this circumstance, the district has obtained the name of Strathmore, or Great-valley. To form an idea of Stirlingshire, therefore, you must figure to yourself two mountainous ridges crossing it obliquely from west to east, and succeeded respectively, on the south, by an extensive champaign.

That part of the Grampians situated in this county, presents but a bleak and barren appearance, and consists only of mountain rising above mountain. Some of these are of very great height. Benlomond is 3262 feet above the level of the sea, rising abruptly from the bank of Loch Lomond, and assuming a conical form towards the summit. This assemblage of mountains, indeed, is much more interesting to sentimental tourists, than inviting to practical husbandmen. The simple natives had been permitted, from time immemorial, to view with indifference the picturesque scenery with which they are surrounded, and to retain without disturbance, the heresy that the most pleasing prospect is the low-lying fertile fields on the banks of the Forth, till some clergymen, about fifteen years ago, officiously published descriptions of this district in the Statistical Account of their parishes. Since that time they are, every season, amazed at the endless shoals of tourists who come to admire their rugged precipices, and heath-covered mountains.

The Campsie hills, in the centre of the county, possess no higher claim than utility; they extend, at a medium, about six miles in breadth; they vary in height from 500 to 1000 feet above the

the level of the sea. With a few exceptions, they rise with a gentle swell, seldom deformed with rugged rocks, and always covered with verdure to the summits. About fifty years ago, this range was covered with heath, and as bleak in its appearance as the Grampians. The introduction of sheep instead of black cattle, gradually effected a total change. Some farmers now regret the absence of the heath, as the top of that plant was accessible to sheep, and afforded them a precarious sustenance, when every species of grass was buried with snow. A necessity arises of feeding with hay in this exigency; but this practice is universally condemned; professedly, because sheep, once accustomed to be hand-fed, soon become too indolent to go in quest of pasture at the return of thaw. The truth, however, seems to be, that the farmers themselves are too indolent to provide hay in summer, and to distribute it among their flock during the severities of winter. They prefer the plan of removing their sheep to low-lying districts where the climate is milder, and where the snow speedily disappears.

Strathmore, in this county, approaches to its western limit, and gradually dwindles to its shortest span. The whole vale, between the Forth and Loch Lomond, was accurately surveyed by the celebrated Smeaton, in order to ascertain the practicability of conducting the Forth and Clyde navigation through this tract; and the point in the bog of Bolat, from which water descends to either sea, was found to be 222 feet above high-water mark. The Endrick, a considerable rivulet, gives name to the strath, flows in the bottom of the vale, and empties itself into Loch Lomond. Along its banks is a narrow tract, apparently alluvial in its origin, and now converted by culture into a rich loam. Where the ground begins to rise on either side, the acclivity consists of a wet tenacious clay. Further up, towards the base of the mountainous ridges, the soil becomes thin, moorish, and gravelly; the surface is covered with short heath, and every hollow generally contains a peat-moss.

The low grounds, on the south of the Campsie hills, are more extensive than those on the north. The county here presents a waving surface; some considerable rivulets wind through the vale; the ground imperceptibly rises as you recede from the county; and the prospect is only terminated by the distant hills of Lothian and Clydesdale. It was to this tract that Smeaton gave the preference for the Forth and Clyde navigation. That canal was finally conducted through this district; it runs twenty-five miles—upwards of two thirds of its length—through this county: its highest elevation is only 160 feet above the level of the sea. This district, though it have the same wet and retentive

tive soil with Strathendrick, possesses the happy peculiarity of abounding with coal. Limestone, ironstone and freestone, are found in almost every part of the county: but every attempt has failed to discover any workable seam of coal on the north of the Campsie hills. It is probable that none is to be found, as the northern boundary of that field of coal which crosses the centre of Scotland, begins at Campbelton in Argyle, and terminates about St Andrews in Fife, passing along the southern verge of the Campsie and Ochill hills.

During the reign of the feudal system, the county of Stirling, like the rest of Scotland, seems to have been engrossed by a few of the greater barons. Their estates were partly parcelled out among their military retainers, and partly occupied by a set of men, characterized, in the old acts of the Scotish Parliament as 'puir people that labouris the ground.' These expressions sufficiently ascertain the wretched condition of farmers at that early period, and render it probable that their rents were commonly paid by performing *bondage* work to the proprietor, and giving a portion of their farm produce. Greater attention seems to have been paid by the barons to ascertain the boundaries of their estates, than to increase the fertility of the soil, or to improve the condition of their tenants. For this purpose, the custom was instituted and observed of *riding the marches*, a ceremony now obsolete in these parts, and of which some faint resemblance is to be found only in those decayed burghs who have preserved no other remnant of their greatness but their landed property. It seems that the procession went formally round the boundaries of the estate; and, 'if ancestry in aught can be believed,' was attended by a large detachment of children, a number of whom were regularly flogged at every conspicuous station, that the sensation of pain, associated with the spot, might powerfully assist their future recollection. *

At that early period, the greatest estate in the county belonged to the family of Lennox. After the decapitation of the last Earl of the first dynasty, in the reign of James II., I believe the property was, in the first instance, divided among his three daughters; and as, in those times of anarchy, *force* and *right* were nearly of the same import, it was gradually diminished, not by the purchases, but by the encroachments of the neighbouring barons. A chamberlain of the Lennox family, from the emoluments of office, was enabled to purchase the barony of Drymen, containing

* My informer of this old recipe for improving the memory, was William Finlay Esq. of Moss, who, since this paper was written, died at the advanced age of 94 years, in the cottage where the celebrated Buchanan was born.

containing the greater part of the extensive parish which still bears that name. This elevation of an upstart commoner seems to have been a grievous eye-sore to feudal pride, and was the foundation of a deadly contest which, for a complete century, he and his family had to maintain with the Earls of Monteith. Although Drymen (for it seemed more common with proprietors in Scotland to assume the name of their lands, than to follow the ancient mode of 'calling their names by their lands') received a full justification, on a reference of the quarrel to the sovereign; yet he judged it expedient to retire from that turbulent neighbourhood, and accordingly sold his estate about the end of the fourteenth century. By that time, laws had acquired some authority under the vigorous administration of the houses of Bruce and of Stuart. The protection afforded to the labouring classes naturally roused them to industry; and industry, directed by prudence, is usually rewarded with wealth. A portion of this spirit seems to have been also imbibed by the cultivators of the ground, who then began to acquire some respectability, if we may judge from the important legislative enactments which were soon after made in their favour. It was among farmers that purchasers were found for the barony of Drymen. The proprietor, after dividing his estate into small portions, and disposing of it probably to his own tenants, retired to the eastern district of Perthshire, retaining the name of Drymen, (the Scotch, and, therefore, the proper pronunciation of Drummond to this day), and, by there purchasing the barony of Stobhall, laid the foundation of the princely fortune afterwards acquired by the family of Perth.

The original estate of the Montrose family was situated in the counties of Forfar and Perth. By the grant of Strathcarron from the Crown, by the acquisition of Mugdock from the Earl of Lennox, and by an exchange with Graham of Fintry, they accumulated an extensive property in Stirlingshire. The greater part of it was alienated in small feus during the minority of the great Marquis of Montrose, by his guardians; and afterwards, during the civil wars, by himself, to support the cause of his Sovereign. At various subsequent periods, considerable alienations of the same nature were made by the Earls of Marr, of Monteith, and of Glencairn. The last transaction of this kind occurred at the commencement of the seventeenth century. The Earl of Wigton was one of the members of the last Scotch parliament who opposed the union of the sister kingdoms. Believing conscientiously that the accomplishment of that measure would be attended with the inevitable ruin of Scotland, and wishing to take every precaution against the occurrence of the evil day, he disponed to his tenants,

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on condition of continuing to pay their then rents, his extensive estate in the parishes of Denny, Kirkintulloch, and Cumbernauld; retaining only a few fields around the family mansion. Several considerable alienations have occurred in later times, particularly in consequence of successive rebellions in favour of the Pretender. The largest of these, even the extensive forfeitures of the Earl of Callander and of Viscount Kilsyth, passed *in cumulo* from one party to another, without being frittered down into minute portions, to enlarge the circle of competition.

It is not easy to determine what proportion the smaller bear to the greater proprietors. The former are greatly superior in number; the latter have the advantage in extent of property. At any rate, the class of diminutive proprietors has not recently increased, and is likely to diminish. From the increasing opulence of the country, there are few estates, however extensive, brought to the market, for which there does not appear a sufficient competition of purchasers for the whole, so as to supersede the necessity of frittering them down as formerly into ploughgates. One is disposed, at first sight, to regret the abolition of the antient system, and to imagine that the most salutary consequences must ensue, when a part of the country, divided into small properties, is possessed and cultivated by the same persons. This class, appearing to combine the security and capital of proprietors with the industry and experience of farmers, should be the first to attempt, as they seem best qualified to execute, the substantial improvement of their property. Their skill is not fettered by the absurd conditions, nor are their operations interrupted by the oppressive services to which tenants are sometimes subjected in their leases. Their tenure being perpetual, or tantamount to perpetuity, exempts them from the mortification of seeing others reaping where they have sown, and secures to them the full benefit of every outlay of capital, however distant in its return. This reasoning, as commonly fares with every conclusion from abstract premises, is decidedly contradicted by experience. Small proprietors undoubtedly have every inducement to improve; and, if they had only the will, improvement would certainly take effect. They enjoy many advantages above actual professional farmers; but, while a certain degree of encouragement is necessary to inspire industry, a superabundance of encouragement as naturally tempts to indolence. Necessity is allowed to be the mother of invention. I am inclined to think that she stands in the same relation to industry. Those small proprietors have never been subjected to her stern authority. There, lands supply, with a little culture, the necessaries of life. The desire of superfluities is not so strong as their aversion to the trouble of procuring them.

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The amount of their prudential ambition is to suffer few pains, and to enjoy as few pleasures. Amidst surrounding industry and opulence, they remain contented with the frugal fare, and humble accommodations of their forefathers.

From these observations, it appears that there is no reason to regret the diminution which has recently taken place in the numbers of small proprietors. They have long been free from the vicissitudes of fortune. In some cases, it is said that the line of succession has continued unbroken, and the inheritance of their fathers descended unaltered, for a period of two hundred years. Few instances have occurred of the union of two properties. It has more frequently happened, that one property has been broken down into minute portions, to make provision for a numerous progeny; in consequence of which, there are now many small possessions of ten or fifteen acres, though every one of them appear to have originally contained a ploughgate of land, or from forty to fifty acres of arable ground. The conclusion of the American war was the period from which this system began to decline. Some of the most enterprizing young men, allured by the golden prospects of commerce, were tempted to sell their paternal acres, and to embark the price in mercantile adventures. Others, descending into the vale of years, and incumbered with a rising family, from the increasing expense of living attendant upon the progressive opulence of the country, finding that their lands were inadequate for their support, contracted debts which they were unable to pay, and at last procured a place in the list of bankrupts. * From the operation of these causes, some larger proprietors have found an opportunity, of which their recently advancing rents have enabled them to avail themselves, to round their estates. I have been informed by some clergymen, that, during the last fifteen years, no less than twenty of the smaller proprietors have disappeared, in their respective

* A ſtriking illuſtration of this ſtatement occurred in the pariſh of Kilſyth, at Claharry, which originally belonged to the family of Montroſe; but was alienated during the civil wars in the ſeventeenth century. It has latterly paſſed through the hands of three proprietors. Each farmed it himſelf, and each ſucceſſively became bankrupt. It was then bought up by the late Duke of Montroſe. From having ruined three ſucceſſive proprietors, it was in no great requeſt among farmers. At laſt, one of the Duke's tenants, who had been outbidden for his former farm, ventured reluctantly, or rather deſparingly, to take Claharry. He regularly paid his rent, brought up decently a numerous family, and, at his death laſt year, left a competent portion to each of his children. The farm conſiſts of 40 acres of arable ground, and about 500 acres of hill-paſture, and was rented at 100l. a year.

parishes, from the list of heritors. Throughout the whole county, that class of men is diminished within that short period, probably by one fourth. Those who retain their paternal inheritance, have the self-command to deny themselves all the refinements of improving society, and the frugality to adapt their living to a diminishing income. They may be generally characterized as independent in poverty, and stationary amidst improvement. If any person wish to become acquainted with the husbandry of former ages, he might study with advantage the indolent habits, and barbarous practices, of the small proprietors in Stirlingshire. It will be easy for him, without the assistance of a guide, to discover their antique and venerable residences, from observing the homestead skirted with trees, in some cases coeval with the estate, and planted by the founder of the family; the humble mansion covered with thatch, and having a few windows much of the same size with those that appear in the castles of feudal times; the stone mortar lying neglected in front of the barn, in which barley was prepared for the pot by the friction of a wooden mallet; the barn itself standing south-east and north-west, with two cross doors, to give ingress and egress to the *commissioned* wind; and the corn kiln, situated in the brow of some rising ground, in which the grain was always dried before it was sent to the mill. This last appurtenance must be sought at a little distance from the other buildings, as its site was prudently removed so far off, that no communication might take place with them when it happened to be in flames; an accident to which those kilns were frequently subject, from the platform on which the grain is laid, being composed, not of cast iron, nor of burnt bricks, but of thin poles covered with straw. *

Befides

* Not long ago, at one of those houses, I met with a quern, though the practice is entirely obsolete in this country, and confined for many years to the Hebrides, of drying corn in a pot, grinding it in a quern, and baking it into cakes, in the course of a morning. Nobody understood its use. The general opinion was, that it was a font, as it is of excellent workmanship, and was found in the ruins of Graham's castle, the residence of Wallace's companion of that name, which was destroyed by the English about the year 1300. It was lately recognized as a quern by a Highland shepherd, on his way to the Tryst of Falkirk. Water-mills are frequently mentioned in the Saxon period of English history. From the remains of a Roman mill lately discovered at Manchester, Whitaker (Hist. of Manch. p. 315.) infers, that this useful engine was introduced by the Romans. As great part of Stirlingshire is situated beyond the wall of Agricola, the utmost limit of the Roman empire, water-mills must have

Besides the general obstacles to the advancement of agriculture, common to the whole kingdom, there were some local disadvantages almost peculiar to this county. Of these, the chief was its vicinity to the Grampians, whence, often,

'A band of fierce barbarians, from the hills,
Rush'd, like a torrent, down upon the vale,
Sweeping our flocks and herds.'

This description is no less exquisite as poetry, than authentic as history. All the Highland clans, from the southern descents of the Grampians to the interior of Inverness-shire, however separated by their jarring interests, or exasperated by their mutual conflicts, agreed in marking the Low country as their lawful prey. The Macgregors were the most infamous of these predatory tribes, being ever in arms against the reigning sovereign, subjected by parliament to severe penalties, and uniformly exempted in every act of indemnity. They had ultimately no fixed residence; but skulked among the recesses of the Grampians, in the contermi-nous districts of the counties of Perth and Stirling, as being the most convenient station for carrying on their predatory occupation. A small fort was erected at Inversnaid, near the head of Loch Lomond, and garrisoned by a detachment from the castle of Dunbarton, in order to suppress those banditti, or to intercept their incursions. As the influence of that military station did not extend beyond the limits of the vale in which it was situated, it afforded no material protection to the Low country; and only subjected the Highlanders to the occasional inconvenience of taking a circuitous route in their plundering expeditions. At last, this defenceless district bethought themselves of the sage maxim of hiring a thief to catch a thief; placed themselves under the protection of the outlawed Macgregors, and purchased that blessing by paying a yearly tribute, under the designation of *black mail*, i. e. rent. Regular contracts were drawn up by the proprietors of the counties of Perth, Stirling, and Dunbarton, in which it was stipulated, that, if less than seven cattle were stolen, which peccadillo was styled *picking*, no redress should be required: if the number stolen exceeded seven, which enormous theft was designed *lifting*, the Macgregors became bound to recover. This duty they performed with considerable address; and instances of their success are still handed down by tradition. In the year

have been later in their introduction into this country. Upon the same principle with Whitaker, one might argue, from the discovery of a quern in the ruins of Graham's castle, that this rude machine was used, and that water-mills were unknown, at the commencement of the fourteenth century.

1720, four ſcore of ſheep were ſtolen about Martinmas, from Stirling of Craigbarnet, within twelve miles of Glaſgow. The Macgregors, upon receiving intimation, ſet out in purſuit of the thieves, who happened to be the Camerons of Lochaber,—traced them to their receſſes in Inverneſs-ſhire, and, after ſix weeks, reſtored the whole flock, with the exception of four ſheep.

A robbery which occurred in the ſame neighbourhood may be mentioned alſo to illuſtrate the ſyſtem of terror which then prevailed in the country. Two Camerons, one morning, carried off ſome body clothes and linen webs, from a waſhing-green. As their burden was cumberſome from being wet, they conſulted their eaſe rather than their ſafety; and ſpread it to dry, on the brow of the Campſie hills, above the manſion-houſe of Kirkton. The proprietor, who had ſerved under the Prince of Orange, and who was indignant equally at the original theft, and the ſubſequent inſult, raiſed the neighbourhood, purſued the robbers acroſs the Campſie hills, and traced them to Balglas in Strathendrick. Dreading the Highland dirk, every one declined attending their leader and attacking the houſe. It was agreed to ſupply want of courage by ſtratagem. Having ſurrounded the houſe with a cordon of men with ropes, after night-fall, they raiſed from all their poſts a hue and cry, which was no ſooner heard by the Camerons, than they ruſhed out with their drawn daggers; but they had only run a few ſteps, when they were entangled with the ropes, and fell to the ground. Being taken at this diſadvantage, they were delivered to the next Heritable Juſticiar, and ſummarily ordered to the Gallow-hill.

This ſyſtem of plunder, with the countervailing ſyſtem of protection, is fully deſcribed in the ſtatiſtical account of Scotland by the clergymen of this diſtrict. It continued down to the year 1745. Rob Roy, the leader of the Macgregors, levied *black-mail* in the pariſh of Campſie, within ſix miles of Glaſgow, a few months before the commencement of the rebellion. This ſtate of anarchy was adverſe to the progreſs of improvement. From the dangers with which the farmers of the Low country were ſurrounded, they were obliged, for mutual defence, to cluſter their houſes together into townſhips, and, in conſequence, to paſture their cattle in one herd, and to cultivate their lands in *run-rig*. The inhabitants of this diſtrict, indeed, were ſcarcely leſs barbarous than the predatory tribes of the Highlands. Though liable to be aſſailed by the common enemy, they had numberleſs animoſities and hoſtilities among themſelves. An eternal feud ſubſiſted frequently between two neighbouring baronies; and always between two contiguous pariſhes. The country fairs, which are numerous,

numerous, and much frequented in a rude ſtate of ſociety, were the ſeaſons tacitly fixed for ſettling their differences. Scarcely a a village is to be found where the people cannot point out a ſpot that was marked with the blood, and is haunted by the ghoſts, of their antagoniſt pariſhioners. It is ſurpriſing that thoſe diſorders ſhould have been allowed to continue till ſo recent a period. No radical cure ſeems to have been applied, till the ſuppreſſion of the laſt rebellion. In conſequence of the vigorous meaſures which were then adopted, of diſarming the Highlanders—of forming military roads through diſaffected diſtricts—and of eſtabliſhing a a public adminiſtration of juſtice on the ruins of heritable juriſdictions, the bleſſings of peace and ſecurity were diffuſed through every rank of ſociety.

Of the ſtate of huſbandry at that period, no reader of your inſtructive miſcellany can be at a loſs to form a juſt conception, from the ample accounts which it contains of the antient rural economy of Scotland. Such notices only will be mentioned in this paper, as ſeem neceſſary to aſcertain the era of incipient improvement in this diſtrict. The farms were ſmall. Some eſtates were occupied in *run-rig*. The ſize of farms, when cultivated ſeparately, never exceeded a ploughgate of land. The implements of agriculture were few in number; and, if feeble in their effect, poſſeſſed the recommendations of being cheap in the materials, and ſimple in the conſtruction. Moſt of them were made by the farmer, without the aſſiſtance of a mechanic. A plough, as being a complicated machine, was reſerved for the blackſmith: it was made of young birch trees; and, if the tradeſman was expert, it was completed in the courſe of a winter's evening. This rude implement ſcratched, without difficulty, the ſurface of old *crofts*, which were reduced, by conſtant tillage, from time immemorial; but made very ſorry work in *outfields*, where the ſward was tough, and ſtones numerous. Some induſtrious farmers, in this caſe, followed up the ploughing with a ſecond operation, called *mending the land*; that is, a perſon with a ſmall triangular ſpade attended the plough, dug up thoſe blanks where it was thrown out, laid over thoſe furrows which the mouldboard was unable to invert, and threw ſpadefuls of earth on thoſe parts where the furrows were too ſhallow to afford mould for covering the ſeed. The *outfield* and *infield* ſyſtem tallied admirably with the ſtate of manners. From requiring a few weeks labour only in ſeed-time and harveſt, it allowed people every facility to take their reſt, when inclined to be lazy; to indulge in merriment when occaſions recurred for feſtivity; and to attend village fairs when their minds happened to be ſanguinary. The oats raiſed by the farmer were ſufficient for the ſeed of the following crop, and the ſupport of

the family for the year; the barley met with a ready sale among the illicit distilleries, and its price was allocated for the payment of the rent; and the butter, cheese, and poultry, were exchanged for such necessaries as were not produced on the farm. These minor products were then of less account, from the difficulty of finding a market, as, from the western district of this county, and even within six miles of Glasgow, they were conveyed to Edinburgh.* The traffic was carried on by a species of middle-men, called *cadgers*, who, in the absence of carts, and even of roads on which carts could pass, conveyed their commodities in panniers on horseback. From this circumstance you will be enabled to form some conception of the insignificance of Glasgow about the middle of last century; and of the rapidity with which it has since risen to be, in point of population, if not of opulence, the second city of Britain; presenting now an effective demand for every necessary convenience and superfluity of life; and drawing supplies, not only from Clydesdale, but, after successively traversing the counties of Dunbarton and Stirling, even from Breadalbane in the central Highlands.

The introduction of carts drawn by one horse, took place in this district only about forty years ago. Some waggons were previously used by proprietors; but these were above the reach of small farmers, all their carriages being performed on horseback. Some coals were thought necessary to enliven the dulness of a peat fire;—a horse, at a time, carried two cwt., which quantity was called a load; and is still the unit employed in calculating the contents of carts or waggons. Some dung was also uniformly laid on the ground for barley, while oats were left to unassisted nature. Sacks were filled with dung at the midden-stead, and afterwards carried to the intended field on horseback. This being a very tedious operation, as little dung was used as possible. The greater part, as being useless, and a nuisance, was floated down rivers; and, if no stream was near, burnt during the drought of summer. Even after carts had become common, the prejudice against dung continued unabated: people were very slow to believe its utility, except for barley. Strathblane is now the

* A curious occurrence may be mentioned which took place under this system. Some ducks which had been bought in Campsie, while exposed for sale in Edinburgh, finding themselves at liberty, rose on wing from the Grassmarket: some of them were found at Linlithgow; and others of them actually returned to their native dunghill. The distance between Edinburgh and Campsie is forty-five miles. What principle directed the ducks in their flight? Of the fact, I am informed by the Reverend Mr Lapslie of Campsie, that his father was an *eye-witness*.

the beſt cultivated pariſh in this neighbourhood, and preſents ſome admirable ſpecimens of huſbandry; yet the Reverend Dr Gibb, at his admiſſion about ſixteen years ago, obtained dung for the carriage. One farmer in his neighbourhood who had accumulated a large quantity, conſidered it ſuch a nuiſance, that he lent his teams to aſſiſt in removing it; and, as the work was thought amazingly arduous, his example was followed by the whole pariſh. Even at this time, in the pariſh of Gargunnock, a tenant upon the eſtate the late General Campbell, whoſe eulogy is contained in a recent Number of the Farmer's Magazine, retains the primitive mode of clearing his midden-ſtead, which Hercules employed in purging the Augean ſtable.

To form an idea of the preſent ſtate of Stirlingſhire huſbandry, it will be neceſſary to examine ſeparately its three rural ſubdiviſions. Of theſe, the Carſe, from fertility of ſoil and priority of improvement, has obtained the precedence. This diſtrict ſtretches along the Forth; extends thirty miles in length, by two in breadth; and is elevated, from ten to twenty-five feet above the level of the ſea. The ſoil is a bed of clay, generally of great depth, unmixed with ſtones or gravel. That in the vicinity of Stirling is probably the richeſt in the kingdom; it gradually declines as you aſcend the Forth; ſo that, while in the former ſituation, farms let for 5l. per acre; in the latter, they are one half lower. The whole diſtrict is cultivated on the correcteſt principles of huſbandry, even though the farms may be characterized as ſmall. The old ſerpentine ridges of four feet in height and forty feet in breadth, are ſtraightened, levelled, and divided; the ordinary breadth being eighteen feet; and the elevation of the centre effected by two gatherings of the plough. Every ſpecies of grain is raiſed with ſucceſs. From richneſs of ſoil and mildneſs of climate, the produce is ample and excellent. It were deſirable to grub up every tree and even every hedge, except ſuch as are neceſſary to ſkirt public roads, as, in this low-lying diſtrict, not only unprofitable, but injurious; to deepen the open drains, ſo as to prevent water from ſtagnating either in furrows or ditches; by freeing the ground of moiſture, to lengthen the ſeaſon, and to facilitate the proceſs, of ſeeding wheat; to extend, ſo far as practicable, the drill huſbandry, not only to improve the quality of the crops, but occaſionally to ſuperſede the neceſſity of a bare fallow; and, in a favourable autumn, to admit the introduction of wheat after beans.

The second district is called the Dryfield, and contains the vale on the north, and the open country on the south of the Campsie hills. It derives its name, not from the absolute dryness of the soil, but from the contrast which it formerly presented to the

wetness of the Carse. Though several parts of this district have arrived at a high state of cultivation, still they are inferior to the Carse in fertility of soil, and their produce is rated in the fiars cheaper by five per cent., in consequence of the deductions which it sustains to raise up to the average price the grain produced in other parts which have scarcely advanced beyond the first step of improvement. The size of farms is enlarged, and one man now occupies five or six of the old ploughgates. Something has been done in draining; a better style of ploughing has been introduced, and manures are more liberally applied: but no judicious rotation of crops has ever been adopted; small patches of wheat are sown after potatoes, while green crops are much neglected. Bear-seed ideas, to use an expression which you have happily introduced, generally prevail; and, in some instances, the distinction between in-field and out-field is retained with primitive precision. It may be considered rather an unfavourable symptom of a corn district, when it is backward in the introduction of thrashing machines: several parishes, however, may be named where there is but one, and some where there is none. The leading error of Dryfield husbandry, is the lateness of the seed-process. Oats are sown about the middle of April, and the bear-seed is hardly finished by the end of May. The immediate effect of this practice, is a late and sickly braird: the soil has no covering from a burning sun: the drought penetrates to the roots of the plants, while the season seldom affords a shower to refresh the drooping blade. It is only when the nights begin to lengthen, as the expression is, or rather after the rains which set in about the solstice, that a vigorous vegetation commences. The corns, springing up with the rapidity of mushrooms, furnish abundance of straw: but the ear is proportionally light, and the harvest, from the lateness of its arrival, is always precarious. These evils being irremediable, suggest the necessity of an early seed-time. If it be objected that the seed, if early sown, will be rotted by the wetness of the soil, it ought to be remembered that the soil of this district, when contrasted with the Carse, has been designed Dryfield; that it is little inferior to the Carse in mildness of climate, and that, in either respect, it must admit of as early a seed-time. If it be apprehended that, in a cold backward spring, weeds, being of a hardy growth, will overpower the braird, I acknowledge that such an apprehension is well-founded in the present state of the country, and would thence infer the absolute necessity of clearing the soil of weeds, and of introducing an alternation of fallow crops.

The last district is called the Muirland, containing about one-third of the county, and including the Campsie hills in the centre, and

and the Grampians on the northern extremity. The cultivation is very rude and limited; the grain raised scarcely exceeds the internal consumption; and the little surplus brought to market, sells about twenty per cent. lower than the produce of the Carse. The greater part of the district, therefore, is occupied under pasturage. That among the Grampians, from its high elevation, is of inferior value. The summit of the hills only is accessible to cattle; the glens being under tillage, and the first acclivity under oak coppice. On the estate of the Duke of Montrose, which is chiefly situated within the county of Stirling, the annual cutting lets on an average at 3000l.; it amounts this year to 5000l. Of the pasturage on the Campsie hills, it is difficult to conceive the richness and luxuriance. Milch cows are maintained, and black cattle are fattened, during summer, on their summit; towards the close of autumn, as much coarse hay is gathered on the grounds previously depastured, as suffices for fodder during winter to young stock. The flats along the banks of rivulets, are reserved for meadow hay, and the quantity raised on some farms, amounts to 7 or 8000 stones annually. The economy of this district is susceptible of great improvement, by rendering the ground under tillage subservient to that under pasturage. The soil is admirably adapted for the turnip husbandry; and as many turnips should be raised as might prevent the flocks and herds from declining, during winter, from the high order which they attain in summer;—as may enable the ewes to suckle their lambs in a backward spring, and to prepare them for the market before the Highland sheep are brought down from a thousand hills;—as may suffice for fattening the ewes themselves, when superannuated, and preclude the necessity of hiring turnip fields in other counties.

Fintry Manse, 14*th Feb.* 1808. JOHN GRAHAM.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Observations on the Rotation of Crops proposed by Sir JOHN SINCLAIR *for Northern Husbandry.*

SIR,

THE present improved state of agriculture over Scotland in general, must certainly be highly gratifying to every one possessed of the smallest degree of national spirit. The highly cultivated fields seen in many parts of it, and the weighty crops thereon produced, are delightful objects, reflecting indeed much merit on the owners, and holding out a flattering prospect of the productive state to which this country may be brought, as well as a laudable example for the imitation of others. Notwithstanding

ing the state of perfection, however, which some places have attained to, no inconsiderable portion of the country is still far behind, even under the management of very active and enterprizing agriculturists; which may perhaps proceed from an error which has long been, and still is, in some degree prevalent among farmers, namely, a propensity to undertake more than can be accomplished in a proper manner. Two acres properly cultivated, will yield more produce than three where the operations have been performed in a hasty and superficial manner; and, indeed it is evident, in many fields which are to be met with, that had the labour and manure bestowed upon the whole, been confined to two-thirds or to the half, more would have been produced, and that the after returns would have been in the same ratio. It is foolish to imagine, as some people do, that our agriculture is arrived at its zenith of perfection; for the greatest pitch any science or profession has as yet attained to, is only such as renders it the more susceptible of further improvement. The highest cultivated field is only brought into a state for making greater returns for future improvements than what had been obtained for former meliorations. In short, improving the soil is like fattening cattle—which, the farther they are advanced, will pay the better for what is afterwards bestowed upon them.

Attention to the increase and improvement of dung seems to be much wanting. It is often applied upon the land in an undigested and moistless state, containing almost nothing for the soil to imbibe, as if the bare name of dung were sufficient. The quality of that made by wintering cattle, is generally much complained of; but it appears to me that a remedy for this, which is neither difficult nor expensive, is in the power of almost every person. Instead of suffering it to remain in the court or yard, through the whole season, in a compressed state, impenetrable to air and moisture, the two indispensable requisites for promoting corruption, it should be carted out occasionally on wet days; and when there is not sufficiency of moisture, it might be sprinkled with water and a little pulverised earth; or, what would still answer better, with that muddy high coloured liquid which is seen running from every farm steading in wet weather. Were this valuable liquid carefully collected, and kept in a convenient reservoir till putrefaction ensued, it would, when used in this way, communicate to the dung a degree of richness which it would not otherwise possess. Once or twice turning over a dunghill, managed in this manner, would throughly corrupt and decompose the whole mass, without much fermentation, which ought to be avoided as much as possible, being always attended with a proportional waste. But the liquid abovementioned not

only

only improves the quality, but increases the quantity of dung, that great desideratum in farming; and, when sufficiently putrefied, enriches peat earth more effectually than the portion of dung prescribed for that purpose by Lord Meadowbank. It also corrects the quality of dung when threatening to *fire-fang*.

Some people pretend that rural improvement has been greatly promoted in Scotland by land being let at *rack-rent*. They are certainly, however, in a great mistake; and it may with safety be affirmed, that the most important and substantial improvements were effected under rents much more moderate than those of the present day. *Rack-rent*, which is of modern date, may therefore be justly considered rather as the offspring than the parent of improvement; and, there is reason to fear that, if the system is persisted in, its baneful effects will in a short time be gradually experienced over the whole country; nothing being more certain, than that whatever lessens the farmer's profits, or diminishes his capital, operates as an obstruction to further improvement. The effects of *rack-rent* are apparent in many places already, not only in the severe rotations that are resorted to, in order to enable the farmer to meet his landlord at term-time, but also in the management of summer fallows and drilled crops; all the operations being performed at as little expense as possible—consequently in a more superficial manner than was customary not many years ago. Daily experience and observation teach that, in every line of life, our exertions are in direct proportion to the magnitude of the recompense of reward in view; the desire of advancing ourselves and families in the world, being the great spring of action among men. Now, according to this rule, *rack-rent*, which curtails the farmers prospect of gain, must tend to enervate the powers of his mind, and, of course, weaken his exertions,—therefore is to be considered as inimical to agricultural improvement.

As the rotations proposed in your last number for the cultivation of Ross-shire, appear to be in a great degree hypothetical, it may not be amiss to mention some circumstances that have been found to militate against part of them. Those proposed by that truely patriotic gentleman Sir John Sinclair, Bart. are—For light land, 1st year, fallow; 2d year, wheat; 3d year, hay; 4th year, pasture; 5th year, oats; 6th year, turnips; 7th year, bear; 8th year hay, and 9th year wheat, with one furrow.—For heavy soils, 1st year, fallow; 2d year, wheat; 3d year, beans or grass seeds; 4th year, hay; 5th year, pasture; 6th year, oats; and fallow afterwards.

The rotations suggested by Mr Dudgeon are—For light soils, 1st, fallow; 2d, potatoe oats; 3d, grass; 4th, grass; 5th, grass; 6th,

6th, wheat; and, in the second course, he recommends turnips to be substituted in place of plain fallow.—For strong soils, 1st, fallow; 2d, potatoe oats; 3d, grass; 4th, grass; 5th, wheat.

These rotations show a strong propensity for wheat crops, at the same time that the preparation, particularly according to Mr Dudgeon's plan, does not appear to be the most favourable. Breaking up land after two crops of hay, giving it three furrows with dung, and sowing wheat, was a favourite system in this county for many years, as it afforded an opportunity of forwarding a part of the wheat seed before the other grounds could be got at; but it was long ago abandoned as unprofitable. Sowing wheat on clover lea, after one crop of hay, has, for some years past, been much practised in several districts. I never approved of the system, and as yet see no cause to be of a different opinion. Oats, in general, are much more productive. Without the aid of dung, they will yield three bolls for two that can be gained from wheat, even when the ground has been well manured, and when manure is withheld, the produce of the oats will double that of the wheat, whilst the land will be in better condition for succeeding crops, the dung being applied after the oats. As the oat crop is for the most part as good after one year's grass, as after two or three years' pasturage, it appears that land, especially when exhausted, is little benefited by being kept for that time in grass, and that it might be rendered much richer by a judicious mode of cropping and consuming the produce. In this view of the subject, I would propose, that in the 2d year wheat or oats be taken, as best suits the soil; that in the 3d year, the grass should be consumed green by cattle, except such a portion of it as may be necessary for winter provender; that oats be taken in the 4th year, when a weighty crop may be expected; that in the 5th year the crops should be tares, turnips, yam potatoes, cabbages, &c. all to be consumed in the house. In the 6th year I would recommend bear or barley, with grass seeds, which generally thrive better with these grains, than on a winter furrow; in the 7th year, that the grass be consumed as in the 3d year; in the 8th year, oats; and, in the 9th year, green crops, such as tares, turnips, &c. to be taken early off the land, if wheat is to follow; and, indeed the land will be in better condition for that grain than if it had been pastured for three years, from the great quantity of manure obtained from the numerous green crops consumed in the manner above mentioned. On strong soils, perhaps, it may not be practicable to carry the system of green crops and house feeding to the same extent, and with the same advantage as on light ones; yet, as it is such a powerful mean for making and amending manure, it should be pursued as far as circumstances

stances will permit. Sown grasses can be raised with equal advantage on strong as on light soils; only they should be sown with bear or barley, rather than wheat. The rotation should be, 2d year, bear or barley, with grass seeds; 3d year, cut grass; 4th year oats; 5th year, tares, yam potatoes or cabbages, as may be most suitable to the soil; 6th year, barley with grass seeds; 7th year, cut grass; 8th year, oats; 9th year, tares, potatoes, &c. which may be followed with wheat, as the ground will then be in better condition for producing that grain, than if it had been pastured for the two preceding years. By a rotation of this nature it appears, that in the course of nine years, not only more grain and fat will be furnished for market; but also more manure got for enriching the soil, than can be obtained from the rotation suggested by Mr Dudgeon.

That your useful work may long continue to be the mean of exciting enterprise and improvement in a profession of so much importance to the country, is the earnest wish of, Sir, yours, &c.

Mid-Lothian, Dec. 1807. T. S. S.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On the Management of Bees.

Sir,

I observe, in vol. III. p. 239. of your Magazine, that bees are considered as an unprofitable concern in an uncertain climate. No doubt, the weather is less changeable upon the Continent than in Britain, and, of course, more fit for the production of honey; but as I am of opinion that the failure of bees in this island is, in general cases, owing more to mismanagement, and the scarcity of the most necessary of all flowers, viz. the heather blossom, than to the irregularity of the climate, I take the liberty of giving you the following account of my mode of managing this useful insect, which I hope will not be unacceptable to your numerous readers.

About twelve years ago, I purchased a few hives, and, though situated in a high, and rather cold district of the county of Cumberland, I have uniformly found them profitable. I generally keep about sixteen hives, and seldom does one of them perish in winter. I deviate, indeed, a little from the mode recommended by Mr Bonnar, in his treatise on bees; for, instead of round straw hives of one piece, I generally use square wood boxes of one, two, and sometimes three pieces, which enables me to add to a weak hive, or take honey from a strong one, at any time in summer. The boxes are made of fir plank, 10 inches square in the inside, and 6 inches deep, with three braced laths indented into the top of each box, small interstices being left for the bees to

pass

pass from one box to another. Two small round sticks are passed in a transverse direction to the laths, and about two inches below them, which serve to support the combs which are fixed to the laths, and in the same direction with them. The upper box is covered with a piece of square plank, which is occasionally taken off when a comb or two, or even a whole box, of honey is wanted. When only a small quantity is to be taken, I give the supporting stick a twitch round in order to free it from the comb, after which the lath, with the comb, is taken out, and, another being immediately put in its place, the bees soon repair the breach; but, when a whole box is wanted, I put a third box below the other two, and, gently lifting up the uppermost, which will generally contain 15 or 16 lib. of honey, I place it in a chair about a yard distant from the front of the hive. I then force the bees from the box that was taken off, by blowing upon them with a pair of bellows, or sweeping them with a bunch of feathers; and, being thus disturbed, they soon betake themselves to the new box, and set to work as busily as if nothing had happened. I always prefer the middle of a warm day for performing any operation about bees, as they are less apt to sting at that time than in the evening or morning. The market price of honey comb in this neighbourhood is about one shilling per lib.; and, *communibus annis*, I reckon the profits of my hives, on an average, at twenty shillings each. In a warm and favourable season, I have taken 67 lib. of comb from a single swarm; but when the summer happens to be cold and backward, some of the hives yield no swarms, and, of course the quantity of honey is greatly curtailed.

I must not forget to mention, that, about two years ago, large tracts of heather in this neighbourhood did not vegetate in the spring, but entirely rotted out, to the great injury, not only of the bees, but also of the sheep and moor game; and that this took place, particularly where the moors were wet, and the moss incumbent upon stiff blue clay. Will be happy to learn, through the channel of your Magazine, if the like occurred in any other place, and to be informed of the cause of it. I am, Sir, yours, &c. J. D.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On the Perth and Fife Canals.

SIR,

FROM the amazing increase of population, it becomes an object of the most momentous consequence that every useful art, necessary for its existence, should have a progressive extension. Under this impression, I was lately much gratified by

by Captain Fraser's description of the intended Perth canal, and the plan suggested by Mr Headrick for extending it to the Forth.

The great national system of navigation extends our power, our commerce, and our population from pole to pole; and from the facility it affords to communication, it as it were annihilates all distance. But the expense of land-carriage is such, as to become an almost insurmountable barrier to the improvements of the internal parts of the empire. The small canal system has removed this wherever it has been adopted, and opens a communication betwixt fellow-subjects, who, living at a distance of thirty or forty miles, were in fact as effectually barred from all commercial intercourse as if they were separated by the Atlantic Ocean. Wherever this system has been adopted, prosperity has been sure to follow.

The Perth canal, by opening up the high lands of Scotland, and connecting them with the very thriving towns of Perth and Dundee, and with navigation in general, will be productive of all the beneficial consequences which are expected from it. The plan of its extension, as delineated by Mr Headrick, through Strathmore and Strathallan, would no doubt enlarge its benefits in a very high degree. It appears however to me, that part of his plan, which would extend it from Loch-Earn to Stirling, is more pregnant with difficulty than benefit, especially as Mr Headrick seems to think it necessary to cut a tunnel for that purpose through a mountain, which would naturally not only occasion an enormous expense, but would require a great length of time to carry it into execution. I hope he will not take it amiss, if I take the liberty to suggest another line of connexion which appears in every respect more interesting and less expensive, and which will combine every possible advantage the canal is susceptible of. The plan I propose is, to intersect the county of Fife from the Frith of Tay, a little below Newburgh, to the Frith of Forth near Methel. It will require a number of locks, no doubt, to overcome the ascent at both friths; but, having reached the summit level, there will be little occasion for any in the intervening country, as the horizontal level may be preserved, by sweeping a line along the south elevation of the Strath by Auchtermuchty and Falkland, and, returning to the eastward, enter into the lowest opening of the south hills, so as to allow the canal not only to be carried through grounds abundantly intersected with rivulets and marshes for supplying it with water, but through a country extremely interesting in its objects, as being filled with coal, lime, ironstone, and other minerals. Were this junction effected, boats could at all times be loaded with

with the produce of Perthshire and Fife, to pass without unloading to the cities of Edinburgh and Glasgow, thus opening a cheap and easy intercourse betwixt the great commercial cities and towns in the centre and west of Scotland. It will afford the means of interchanging the West India importations of Glasgow with the manufactures of Perth, Dundee and Fife; and of having the fish of the Forth, and the salmon of the Tay, carried alive to market. And it will particularly contribute, in a high degree, to the reduction of the price of coals at Perth, and along the whole north line of the canal. It will also tend to the reduction of the price of lime, by affording the means of bringing it in a manufactured state from the Forth and the inland parts of Fife, and bringing coals for burning the lime at Loch-Earn at a cheaper rate than is done at present. It will afford a centrical point of communication for the sale of the produce of Fife,—convey the goods presently transported by carriers, at a great expense, at a comparatively trivial price,—facilitate the conveyance of travellers and of troops in cases of emergency, and, in short, will form an united whole, equally interesting, useful and brilliant. I cannot leave this subject, without requesting Captain Frazer's indulgence in entering more minutely into the investigation of the actual expense which will be incurred in burning Loch-Earn lime at the town of Perth, by which it will appear that it is by no means so interesting an object as he seems to represent. It is equally unnecessary that he should, as a general engineer, understand the practice of lime burning, as that an astronomer should find it necessary to construct his own quadrant. I shall not for a moment doubt his being able to lay down the limestone at Perth at 6s. 6d. per ton, because he states it as a fact. But he will have the goodness to allow me to calculate the subsequent expense of preparing and bringing it to market, as founded upon the experience of many years, by which it will appear, that so far from being an object of value to the public, there will not be a shadow of profit derived from it by either the proprietor or manufacturer. I beg leave to premise, that the lime measure at Perth is peculiar to itself, and that a ton of limestone does not produce more than two bolls three firlots of lime of that measure. The price of the boll, therefore, at the rate of 6s. 6d. per ton, will be L.0 2 4½

Cartage of limestone and coals to and from the boats, magazines, and drawkilns - - -	0	0	3
Setting, taking out of the kilns, and measuring -	0	0	2
Overseer and clerk - - - -	0	0	1
The price of coals at Perth I understand to be 1½d. per stone, and ten stones are, *cæteris paribus*, necessary for the burning of a boll of lime - -	0	1	6
Carry over L.	0	4	1½

Brought over	L. 0	4	1½
Rent to the proprietor - - - -	0	0	2
Selling, insurance of bad debts, and uplifting money	0	0	1
Loss by ill burnt stones, and interest of money -	0	0	0½
	L. 0	4	5

In addition to this, I beg leave to state, that in order to carry on a plan of such extent, not fewer than 500 quarrymen will be necessary, and at least 60 or 80 horses, perhaps more. These will require about 600 houses. Suppose each house to cost 30*l.*, a previous outlay of 18,000*l.* will be required. In burning lime for 20,000 acres, say at 40 bolls per acre, the number of bolls necessary will be 800,000, besides what may be wanted for building. As this article is only in demand in the summer months, when the farmer has leisure for carrying it to his land, the time in which it can be burnt with a certainty of sale must necessarily be very limited, more especially as the market will be glutted with lime from this immense additional quantity meeting the competition from Sunderland and the Forth. The shortness of the period requires a greater exertion while it lasts, and 50 drawkilns will not be found more than sufficient for burning that quantity of lime. These cannot be estimated at less than 150*l.* each, being 7500*l.* Carts, horses, quarry tools, sheds, &c. &c. 2000*l.*; making a total of previous expense, 27,500*l.*, the interest of which will add more than another penny to the boll. No rent is stated for the ground occupied by the stones and coals, houses or drawkilns, and nothing for the expense of storing up the stones, which is essentially requisite to prevent the quarrymen from being incumbered with them during eight months of the year. All these, together with the nameless list of expenses incidental to extensive and untried plans, must exhibit a formidable barrier to their being carried into effect, were all competition removed. But when it is considered that the best Sunderland lime is sold at Perth at 4*s.* per boll, and that the aggregate expense of the Loch-Earn lime is not less than 4*s.* 5*d.*, without charging a single shilling of profit after the immense outlay necessarily incurred, it must appear in a very discouraging point of view indeed; and I fear that the only tendency of the proposed plan will be, to mislead the proprietors with ill grounded hopes of profit, and to induce farmers to speculate dangerously and prematurely. At the same time, I doubt nothing of its becoming an object of importance to the proprietors and farmers on the banks of Loch-Earn, on a scale suited to the supply of the immediate vicinity of the quarries, and especially

if coals are brought from the coal-pits in boats without unloading.

If that spirit of enterprize which has brought forward the Perth canal, shall prove infectious to the neighbouring county of Fife, I flatter myself a very essential continuation of it might be adopted, by intersecting that county from Newburgh to Methel. The canal would not only pass through the very centre of Fife, and afford every local facility of boating grain, coal, lime, and other produce, but would form the shortest, cheapest, and most valuable connexion betwixt the Glasgow and Perth canals, so as to unite every possible benefit which can be derived from such navigation.

If, however, it shall not be considered as an object of sufficient importance to execute the Fife canal on the same scale as that proposed for the Perth one, still nearly the same benefits may be derived from adopting one on a smaller scale, as is now frequently practised in England, and suited only to boats of 12 or 16 tons, 4 feet wide, and drawing 4 feet water, as three, four, or more of them can be drawn as easily in a line, by one horse, as a single boat of fifty tons would be.

The expense of this would be a mere trifle, considering the importance of the object, as it would not cost half the expense of a turnpike road of the same extent. The length of the canal will not exceed nineteen miles, making an allowance of five miles for the circuitous course it must necessarily have, in order to preserve the level, and save locks. In short, Sir, I flatter myself, that the more the subject is investigated, the more its importance will appear, both as a national object, and one of real interest to the country, and even to private subscribers. I have the honour to be, your most obedient servant,

FIFENSIS.

FOR THE FARMER'S MAGAZINE.

Letter from the President of the Board of Agriculture to the Reverend Mr Rennie, Kilsyth.

Board of Agriculture, 32. Sackville Street, 29th March 1808.

SIR,

THE first part of your treatise on Peat Moss having been referred to a committee of the Board of Agriculture, I have the pleasure to inform you, that it met with their approbation, and that they hope you will be able speedily to complete your inquiries. They have voted you THE SILVER MEDAL OF THE BOARD, in testimony of their approbation; and they have ORDERED THIR-

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TY COPIES of your Work to be purchaſed for diſtribution in ſuch parts of the kingdom where peat is moſt prevalent, and where your ſuggeſtions may promote its improvement.

I remain, Sir, your very obedient ſervant,

JOHN SINCLAIR, Preſident.

To Rev. Mr Robert Rennie, Kilſyth.

NOTE BY THE CONDUCTOR.

WE obſerve, with conſiderable ſatisfaction, that the opinion given in laſt Number of this Work, concerning the merit and ingenuity of the Eſſays on the Natural Hiſtory and Origin of Peat Moſs, by the Reverend Mr Rennie, Kilſyth, is ſanctioned by the reſpectable authority of the Board of Agriculture, as appears from the preceding letter of the Preſident of that Board to the Reverend author. If any circumſtance can accelerate the active endeavours of Mr Rennie to favour the public with a complete copy of his writings which regard Peat Moſs, and, more particularly, to deſcribe the economical purpoſes to which it may be made ſubſervient, we are almoſt ſure that the high approbation of the Board of Agriculture will furniſh the moſt powerful encouragement. To be cheered by the applauſe of a national inſtitution, eſpecially one of ſuch reſpectability, muſt animate the induſtry and abilities of any writer whatever. Nay, more, it muſt ſtimulate him to perſevere, even though the trouble and drudgery of the taſk ſhould be great, till the ſubject in hand is fully diſcuſſed, and the reſult of his inquiries ſubmitted to the conſideration of the public.

In addition to what is ſtated in the preceding letter, we have the pleaſure of announcing, that Mr Rennie is of late unanimouſly elected a correſpondent member of the Board of Agriculture, and that that reſpectable Inſtitution has been pleaſed to urge, in the moſt ſtrenuous terms, the completion of the whole work as ſpeedily as poſſible. We believe, however, that Mr Rennie means to publiſh it in parts, and afterwards to reviſe and correct the whole, in one or more volumes, ſhould his labours continue to meet with the like encouragement from the public as has been conferred on the firſt part. The Third, Fourth, and Fifth Eſſays will therefore ſoon be publiſhed; and we are happy at having it in our power to intimate to our readers the ſubjects to be treated of in thoſe Eſſays, and the mode and manner in which they are to be diſcuſſed. The remaining Eſſays (there are eleven of them altogether) ſhall be afterwards noticed.

ESSAY III. *On the Changes which Vegetable Matter undergoes when converted into Moss.*

§1. What is requiſite to accompliſh this change. 1. Moiſture. 2. That the water be ſtagnant. 3. Poſſeſſed of certain chemical qualities. 4. A low temperature.

§2. The changes which animal matter undergoes in the above circumstances. 1. The causes of these changes. 2. The consequences of them. 3. The residuum.
3. The changes which vegetable matter undergoes in such a residuum. 1. The causes. 2. The consequences. 3. The residuum.
4. The difference of the residuum of vegetable matter in the above medium from that of the atmosphere. 1. Causes. 2. The consequences.
5. That peat moss is vegetable matter which has not undergone the putrid fermentation. Proofs and experiments.
6. The causes of the difference between peat moss and vegetable mould, though formed of similar materials.
7. The causes why peat moss is less inflammable on the surface.
8. How peat moss is formed, and by what chemical process, in its different stages.
9. That every species of moss is capable of being converted into a fertile soil or a rich manure.

Essay IV. *On the Simple and Compound Substances to be expected in Peat Moss. That these are such as might have been expected* a priori.

§1. Carbonaceous matter. 1. Why it may be expected. 2. How it abounds.
2. Hydrogen. 1. That it abounds. 2. More than in vegetable mould.
3. Sulphur. 1. Why it may be expected. 2. Abounds in some mosses.
4. Phosphorus. 1. Many mosses contain it. 2. How.
5. Tanin. 1. May be expected in moss. 2. Abounds in some.
6. Iron. 1. In all mosses. 2. Its combinations in some.
7. Acids. 1. Gallic. 2. Sulphuric. 3. Suberique.
8. Bituminous matter. 1. Materials. 2. How formed. 3. Abounds in some.
9. Alliance between peat. Surturbrand. Coal.
10. Peat convertible into coal. 1. Means. 2. Experiments.
11. Proofs that similar changes are forming under our eye.
12. General conclusions. 1. 2. 3. 4.

Essay. V. *Of the Distinguishing Qualities of Peat Moss. These precisely such as might have been expected* a priori.

§1. Inflammability. 1. In all. 2. High degree of it in some. 3. Causes obvious. 4. These stated.
2. Antiseptic. 1. This quality in all. 2. In some remarkable. 3. Causes obvious. 4. Stated fully.
3. Colour of peat. 1. Nearly the same. 2. Causes obvious. 3. These stated fully.
4. Tenacity and insolubility. 1. All peat, when dried, possessed of. 2. Causes stated.
5. Acidity of peat moss. 1. Universal. 2. Exceeds in some. 3. Causes.

§6. No

§6. No living animal in moss as its mould. 1. Causes of this. 2. Experiments.
7. Moss in its natural state unfertile and unfavourable to vegetation as a soil. 1. Causes obvious. 2. When these are removed it becomes fertile. 3. Means to be used.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

Inventas aut qui vitam excoluere per Artes,
Quique sui memores alios fecere merendo.

SIR,

WE live at a period, not only of greater interest in respect to the events which take place upon the political theatre, but more pleasingly interesting than any former epoch, from the rapid and steady course with which we advance towards perfection in agriculture, and those improvements which are calculated to encourage it.

The last 30 years have indeed been the commencement of a new era to Scotland; and a person who left it 25 years ago, will no doubt be very agreeably surprised at the prosperous and handsome appearance, both of the country and of the towns. The time is not remote, when the nakedness of our mountains and vallies was almost proverbial; and our cities, if we except Glasgow, presented little better than meanness and decay. With all our partiality as Scotchmen, we cannot help admitting, that our fathers little understood the art of living comfortably; and those who remember the state of filth, in the midst of which they passed their lives in the towns, can hardly escape some emotions of disgust at the recollection. These days are however past; and perhaps the greatest change which has ever, in so short a time, taken place in any part of the earth, has been produced in general over Scotland.

Those who knew Edinburgh and Leith 30 years ago, can best contrast their appearance and comforts at that period with the present splendid and imposing aspect of the Caledonian capital and its seaport. The mind is almost bewildered in trying to trace the causes of such a change from the excess of meanness to the height of magnificence; and when we survey the country, we are equally surprised by the improvement of its cultivation, and the extent of the thriving plantations which shelter and adorn it in every direction. Had Dr Johnson visited the kingdom in the state it now exhibits, his prejudices would have received little room for triumph; and he would have been forced to withhold his sarcasms.

In proceeding northward from Edinburgh, Perth first attracts the attention. A few years ago, it was an ugly, mean place, with nothing to excite admiration, except the beauty of its situation,

and the grandeur of its bridge. At present, it is one of the prettiest towns in Europe, and displays all the fascination of architecture, and all the elegance of regularity. Aberdeen has likewise greatly increased, both in beauty and population. Peterhead, from a trifling village, has become a handsome town. Every other town in the north has both increased in size, and in cleanliness and beauty; and even Inverness is fast emerging from its dusky hue into regularity and splendour. In every other part of Scotland, similar advances have been made; and Glasgow, so long supereminent in beauty, still, by new exertions, maintains her superiority.

But those improvements which are of most importance to the farmer, are the new roads and bridges, which not only facilitate the labours of the traveller, but must add, in a very great degree, to the comfort of the farmer. Every thing which the farmer requires for the produce of his crop, and every step which he must take for the disposal of it and of his cattle, must be subject to the direct influences of easy or difficult communication; and the richest country, without easy means of communication, must soon yield the palm of fertility and value to districts naturally sterile, but enjoying those advantages. Travelling upon the old lines of roads in the Highlands, was 'pain and woe,' and must have often suggested the idea, that the persons who laid them out were actuated with a rooted hatred to the country. It is impossible to conceive what other cause, except the grossest ignorance, could have induced them to follow the tops of the mountains, instead of the sides of them; and prefer a constant ascent and descent, to the level which the new lines of road follow. The want of bridges, over rapid and deep streams, made all communication very precarious; and little short of absolute necessity will induce a man to run the risk of disappointment, when the reward of success is not both certain and important.

The bridges over the Spey and the Findhorn have been finished for some time, and are both works of the greatest beauty and utility. The noble bridge at Dunkeld is far advanced towards completion; and, united with the superb scenery at that romantic place, will surpass any thing of the kind in Britain. Bridges are soon to be commenced over the rivers to the north of Inverness; so that, in a short time, the whole rivers of the north may be said to present no obstacle to communication; and, in that view, to cease to exist, in the same manner that Louis the Fourteenth imagined the Pyrenean mountains to have been removed. These improvements, and those likewise carrying forward in England and Ireland, are the more encouraging to the lover of his country, from the solicitude which our neighbours the French display in pushing forward similar works, in every part of their empire.

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In some respects, they certainly surpass us in the nobleness of their works; such as, in the grandeur of their public roads, and in the beautiful wharfs which adorn many of their maritime and inland cities; while in bridges and canals they fall far below us. There are very few cities in France which admit of decoration along the rivers, or the sea, which are not rendered extremely interesting by the nobleness of the architecture and the spaciousness of the wharfs. Paris, Bourdeaux, Lyons, Tours, Marseilles, Orleans, and many others, are examples of this. At Orleans, where I resided some time, the fronts of the houses, alone, along the Loire, were uniformly and beautifully constructed by the city, and disposed of with the ground, for the purchasers to add every other part of the building. In this country, this plan is totally neglected; and nothing can exceed the meanness, in point of appearance, of most of our wharfs. Our roads are probably as convenient as those of France; but, in point of spaciousness and durability, they cannot be compared to theirs. France has no bridges to boast of, any way comparable to those belonging to London and Westminster. The bridges of Paris are not of such dimensions as to admit of grandeur in the design. Those of Orleans and Tours are neat; but nowise worthy of the admiration which has been bestowed upon them. At Toulouse, a very plain bridge, of few arches and moderate dimensions, is decorated with a triumphal arch, and an inscription, describing it as the *octavum miraculum mundi*. The *Pont de Saint Esprit*, over the Rhone, is a long, mean-looking bridge. If Bonaparte succeeds in establishing a stone bridge over the Garonne at Bourdeaux, it will indeed be a noble and useful monument of his reign. The Romans have left an aqueduct in the south of France, over the river Gard, to which every other specimen of communication by arches in Europe must yield. I cannot convey any idea equal to the sensation with which this stupendous work inspired me;—rapture, wonder, thoughtfulness, and regret, were all united. The harmony and nobleness of its simplicity; its proud defiance of the ravages of so many centuries; the empires which were brought to maturity, and declined into the imbecility of age; and all the changes amidst the human race, since its erection, poured at once upon my mind. The most venerable edifices of Gothic times have no power over the soul, to be compared to this. We are, by descent and by customs, so united with the authors of these, that the distance of the period of their foundation appears trifling; but works of empires long extinct, and only faintly known in the page of history, lingering upon the face of the earth, entire and majestic, have somewhat of a preternatural aspect. And I am not in the least surprised at the first effect which the ruins in Upper Egypt are said to have had upon the French army, who,

as if inspired with one soul, stood still, and clapped their hands in mute astonishment.

But if the French and their neighbours do not surpass in the grandeur of their bridges, the ingenuity of their inventions may well deserve an imitation, which I do not find we are ready to fall into. The simplicity and utility of their flying bridges (which convey, at once, many hundreds of persons and cattle across the largest rivers, and that by simply turning a helm which makes the vessel borrow an impulse from the current, which acts in sending it across the stream, by means of a block running upon a cable, suspended from two large masts fixed on the opposite banks of the river, and to which block the vessel is attached by a chain or rope) are well worthy of admiration. The bridge of Rouen, which, though paved, rises and falls with the tide, is perhaps unique of its kind; and the different wooden bridges in Switzerland, are wonderful masterpieces of complicated art, and of vast utility.

The canal of Languedoc has received so much praise, that I am not surprised that travellers, expecting so much, should be arrested by contempt, instead of wonder. This is the case in every circumstance where the mind is too much preoccupied, and where the subject is to be admired in detail, and not by the first *coup d'œil*. Considering the period of its commencement, and some of the works belonging to it, this canal is a very noble work; and the bason of Saint Feviole, near Soreze, where I resided many months, and which supplies it with water, is a curiosity such as is seldom to be met with; and the visit to which, is, I find, mentioned by Marmontel as a part of his life well worth recording. But France must yield to England in the department of canals and bridges. Except the canal of Languedoc, and that which united the Seine to the Loire, there were none, till lately, of any consequence in France. At present we hear of several; and they seem to be carried on with spirit. It would be difficult to give a description of the canals of England, they are so numerous and so well constructed. In Flanders, I find, by Froissart, that canals were common, so far back as the 14th century; but that is so flat a country, that one level was all that was to be studied; and they ought rather to be called large ditches than canals. The munificence of government, in the present reign, has made Scotland the mistress of a canal of larger dimensions than any other country can boast of. The largest canals in Europe can only carry vessels of limited tonnage; but the Caledonian canal is calculated for frigates of 32 guns. It is carried on with great vigour and judgment; and, when finished, will be a noble remembrance of our excellent Sovereign. Those who had an opportunity of knowing the sentiments of the French na-

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tion during the hottest period of the revolution, are best able to appreciate how much the gratitude of a people is to be gained by works which have the benefit of the human race as their basis, and how little all the works of ambition are capable of conciliating the affection of the present age, or of posterity. The civil operations of Henry IV. and of Louis XIV, often stopped the rage of the revolutionists, and extorted involuntary applause; while their fortifications and more dazzling operations only obtained for them the accusation of oppression, and the charge (perhaps false) of preferring their own feelings of ambition to those of their people. I am, your constant reader,

21*st September*, 1807. SEVERUS.

TO THE CONDUCTOR OF THE FARMER'S MAGAZINE.

On the Property Tax as it affects Farmers.

SIR,

THE public attention of Scotland has been lately called to the consideration of a subject, in which the landed interest is materially concerned, and one not undeserving of notice in a Magazine that professes to be solely devoted to the purposes of agriculture. I would beg leave to contribute my mite to the good cause; and request the favour of you to insert the following thoughts as soon as possible; because it is a common saying, approved by experience, 'It is best to strike the iron while it is hot.'

The subject alluded to, relates to the present mode prescribed for assessing the farmers in Scotland for the property tax. The county of Ayr took the lead in bringing this subject into public notice at a county meeting called for that purpose; and their determination and resolutions being before the public, I shall not repeat them. Only it may be observed, that they were judged to be of such importance, that other counties of Scotland have been called to meet and deliberate upon the same subject.

With regard to this tax, it is difficult to suppose that there can be two opinions upon the subject. If a number of people were to sit down calmly to devise the most partial, unjust, and oppressive mode of assessment of tenants for their tax on profits, they could not have stumbled upon a more effectual one than that presently adopted; for the extent of rent is so far from being a true criterion of a farmer's profit, that, in nineteen cases out of twenty, it is the reverse. There cannot be a principle more obvious to the common sense of mankind than this, that the greater a farmer's rent is, the less his profits must generally be; and to take the half of his rent, therefore, for the amount of his profits, must be absurd in the highest degree. It is the same thing as if we were to measure the extent of mercantile profits by the extent of the transactions in which a merchant may be

engaged,—

engaged,—which, every one will be ready to allow, would be most erroneous and unjust; and yet it is hardly so erroneous as the other: for, in the case of farmers, there is no allowance made for capital invested in his farm, nor for the various and accumulating expenses to which he is subjected; all of which, together with his rent, ought to be taken into the account, before a fair balance can be struck, and it can be known what his profits really are.

The evident purpose and meaning of what is called the property tax act, is to assess every man in proportion to his real profits, whatever source they may be derived from; and there is no reason why farmers should not bear their proportion along with other people. They enjoy an equal share of the benefits of protection and security from the British government, with every other description of the community; and it is but fair that they should pay for it. They are willing to pay for it. All they require is, that their profits should be fairly ascertained. There is a great similarity betwixt them and the mercantile, or rather the manufacturing interest. Let the same, or some such assimilating method of assessment be taken with the one as with the other; and the loyalty and patriotism of the farmers throughout Britain, will make them submit to it with the utmost cheerfulness.

And the necessity of the case requires that this should be instantly set about; because the burden is heavier than farmers can possibly bear. It is a burden that must ultimately fall upon the landed interest; and they seem so sensible of this, that they have at last stept forward, and taken up the measure; and it is not to be doubted, that, if they persist in it with zeal and unanimity, they will succeed. It is one of those things that only needs to be fairly and fully represented, to convince any one of the propriety of obtaining redress. But much will depend on the mode of application to the Legislature. By means of the meeting of Royal Burghs, and the Chamber of Commerce, the voice of the mercantile and manufacturing body is at once heard and attended to. What is to hinder the same combined unanimity among the gentlemen of Scotland? There are thirty-three counties in Scotland. Suppose a representative from each should meet at Edinburgh, and concert measures for a joint application to Parliament. This unanimous application would convince the Legislature that their claim was not frivolous. If the claim should be resisted on a first attempt, let it be renewed and persisted in, till the justice of it is understood and acknowledged. Unanimity and perseverance, in a calm and legal manner, cannot fail at last of success.

'*Gutta cavat lapidem, non vi sed sæpe cadendo.*'

I am yours, &c. BENEVOLUS.

BRANCH II.

Review of Agricultural Publications.

An Inquiry into the Extent and Stability of National Resources. By the Reverend Thomas Chalmers, Kilmany. Edinburgh, Oliphant & Brown. London, Longman & Co. pp. 341. 1808.

'I'll sell my cow and get justice,' is a common exclamation among operative agriculturists when they consider themselves injuriously treated; but few of them, after passion subsides, are so foolish as to gratify revenge by putting such a threat into execution. Something of the temper which governs operative agriculturists in the moments of irritation, seems to influence the author of the work now on our table; with this difference, that instead of selling, he is for killing the cow; a resolution which, we confidently trust, will not be sanctioned by the good sense of the British nation.

Unfortunately, it happens that the doctrines inculcated by the Reverend author are somewhat in unison with the politics of the day; therefore, may be listened to by people, who, under different circumstances, would have rejected them at the first hearing. Owing to the present state of the Continent,—to our unhappy differences with America,—and to the several Orders issued in Council since January 1807, foreign trade is much curtailed, and many of the people employed in carrying it on are thrown out of employment, and of course become dissatisfied. To cry down foreign trade, and to maintain that Britain may flourish without commerce, must therefore be topics highly gratifying to those who have either directly or indirectly been the means of placing trade in such a novel situation. With those, however, who consider manufactures and trade as the main props of British prosperity,—who look upon foreign commerce as the great milch cow from whose teats the most beneficial nourishment may be drawn, the object of our author will appear to be neither more nor less than to recommend political suicide. Mr Burke well observed in 1775, when a bill for prohibiting trade with the North American colonies was before the House of Commons, that the measure seemed calculated to destroy what the wisdom of two centuries had been employed in rearing; that the greatest bungler on earth could cut a throat and banish the living principle, but that the most profound philosopher was incapable of reanimating the carcase when once deprived of vitality. The like remark is applicable to trade. Look over the history of the whole world, and say what nation regained the possession of trade after being deprived

prived of it for any length of time. It is needless to quote the cases of Tyre and Carthage, and other ancient governments, in corroboration of this opinion; or to inquire concerning the famous Hanseatic league, under whose auspices the whole trade of Northern Europe was, three or four centuries ago, conducted. Neither need we instance the condition of Venice and Genoa, cities long the marts of eastern and southern commodities, but now hardly known in commercial annals. The shutting up of the Scheld in virtue of the treaty of Westphalia, 1648, ruined the trade of Antwerp; but the expectations entertained that the reopening of the river in 1792 would restore the place to its ancient flourishing state have been completely disappointed. By minor politicians, the reopening of the river was, however, viewed as a grave and solid cause for going to war. These wiseacres did not reflect, that the disposition of the inhabitants was totally altered, and that the capital formerly devoted to trading purposes was either dissipated, or flown to other countries. Hence Antwerp has received but a very partial benefit from an event which, by many people, was considered as insuring a return of its ancient prosperity.

Since the reign of Henry VII., when Cabot was employed to cross the Atlantic and investigate the coast of North America, it has less or more been the policy of every British government to encourage foreign trade. This encouragement was bestowed by planting numerous colonies abroad, by supporting and protecting these colonies at a great expense, by passing innumerable laws in favour of commercial pursuits, and by holding out bounties or drawbacks in assistance of exportation. To the growth of these colonies, the first dawn of British prosperity may be traced. Numerous articles of commerce were furnished from them for supplying the consumption of other nations; and, owing to the navigation laws, laws first enacted during the protectorate of Cromwell, and steadily enforced for a century or more afterwards, a great part of the trade of the world gradually centred in Great Britain. To this increase of foreign trade, must be attributed the rapid increase of our manufactures, notwithstanding of the heavy taxes which impeded them. From the prosperous state of manufactures, agriculture received efficient aid. A demand was created for the produce of the ground, which afforded the most substantial support to those engaged in its cultivation. The scale of population was considerably heightened, and all corners of the island displayed satisfactory evidence, that improvement in every art was going forward with steadiness. In some districts, slender discernment was required to ascertain that improvement was proceeding with the greatest rapidity.

In

In this state of matters, when the island in the gross presents the most flourishing appearance—when manufactures, though checked by a partial stagnation of foreign trade, are on the whole thriving and prosperous—when agriculture is fast advancing to perfection—and when the condition of all ranks, from the lowest to the highest, is becoming from day to day more and more ameliorated, are we called upon by the Reverend author of the work under consideration to turn every thing topsy turvy, and to renounce the numerous enjoyments and comforts with which we have been so highly favoured. In short, we are advised to sacrifice manufactures, and abandon foreign trade; to convert our manufacturers into soldiers and sailors; and to burden the agriculture of the country with an immense load of taxes, under which it could not possibly exist for the short space of half a dozen of years. And what is the mighty object to be gained, and for which ruin and misery must thus be hazarded? The ostensible object is, that the country may be saved from the oppression of a foreign foe, though we are inclined to think, that resentment against that foe is in some measure the real one. Three or four years ago, many people entertained serious apprehensions that the contest would be decided on British ground. The good sense of the nation has, however, since returned; and few are now so silly as to imagine, that Britain is in the slightest danger, so long as she is true to herself, and maintains that astonishing preponderance at sea for which she has been so long distinguished. It is pretty plain that the French ruler cannot conquer us; and it is equally clear, that we cannot conquer him. He may lessen our trade, and increase our privations; but these are the sum and substance of what his hatred can accomplish. We, on the other hand, may capture some ships; probably take an island or two; keep his coasts in a state of alarm; now and then burn a town, and possibly bring misery and ruin on the unfortunate inhabitants. But what is all this to the main business? Will such piddling attempts at warfare bring our antagonist to his marrow-bones, or serve to raise us one step higher in the scale of nations than we stand at the present moment? Will we by such means procure satisfaction for the past, and security for the future? No! No!! We may waste our strength, and diminish our resources; but, under existing circumstances, cannot advance one inch nearer to the goal which we are attempting to reach. If war, however, is to be persisted in, we pray most devoutly that the measures recommended by our author may not be resorted to; and in this pious wish, we trust that the great majority of our readers will concur with us.

Having said so much upon the general object of Mr Chalmers, it is now time to examine his statements more particularly.

The

The book is divided into eight chapters, with a conclusion and appendix. The first chapter treats of *the case of a country that carries on no foreign trade.* 2. *Of a country which carries on foreign trade, but is subsisted by its agricultural produce.* 3. *Of a country which has to import agricultural produce.* 4. *On profit and capital.* 5. *On the distinction between productive and unproductive labour.* 6. *On taxation.* 7. *On the effects of taxation upon the labouring classes of the community.* 8. *Consideration of some difficulties and objections.* The conclusion contains a comparison betwixt the present situation of Britain and that of a gentleman's estate on the seashore which it was necessary to embank, so as inundation by the sea might be prevented.

In the first chapter the author arranges population in different classes. 1. The agricultural population, which he seems justly to consider as the most useful class. 2. Those who are engaged in providing what he calls the *second necessaries of life*; that is, the people employed in manufacturing raiment, building houses, and providing other accommodations. The whole of the remaining population is thrown into a third class, and characterized in the lump as *disposeable population*; in other words, that part of the population which the state may use in any manner that it pleases. This arrangement seems to be erroneous; and it was with some surprise that we observed, not only landed proprietors, but even the rulers and legislators of the country, classed amongst the disposeable population. Nay more; the officers of justice, the members of literary and ecclesiastical establishments, the practitioners of law and physic, soldiers, artists, manufacturers and tradesmen, are classed in like manner. It might have been expected, that our Reverend author would have kept the members of the ecclesiastical establishment out of this class; and had he even been disposed to regard medical practitioners as a part of the second class, we would not have found fault with him.

We presume, that population may be much more correctly classified, by dividing it into the working, consuming, and useless classes; at least, that every practical purpose may in this way be easier gained, than under the arrangement adopted by our author. According to our views, the first class is composed of those who must earn their bread by the sweat of their brows; and, in a political light, we hold it to be a matter of small importance at what kind of work their bread is earned. The second class is composed of those who are not under any necessity of resorting to corporeal labour for a livelihood; and this class, though not numerous in a new-settled country, is generally an extensive one under every old government. The third class is composed

of

of mendicants, idiots, and the like, who, in fact, are a burden upon the other two classes, and of no use to the community. That an arrangement of a different kind has been followed by Mr Chalmers need not excite surprise, seeing that the one we have chalked out would not have answered the purpose he had in contemplation.

That purpose is early developed. He says, in the 12th page, 'The members of the disposeable population do not labour for the necessaries of life;—they labour for those higher accommodations of luxury, which are not essential to existence, and which it is therefore in the physical power of man to dispense with.

'They can, therefore, be recalled from any one employment to any other employment; they can be made to take any direction which the country may choose to impress upon them. This change of employment does not affect their maintenance,—it only affects the direction of their industry; the agricultural population will provide them with the same quantity of food as before; the second division of the population will provide them with the same quantity of the other necessaries of existence; they will have the same degree of comfort and subsistence; and the whole amount of the mischief will be, that temporary inconvenience which attends a change of employment.'

There is certainly a portion of plausibility in what is here stated; though we are afraid, when examined closely, that the sentiment will be found to be rotten and unsound. Whatever direction may be taken by the industry of the disposeable population, no doubt the agricultural population will provide them with the same quantity of food as before, while the second division of population will provide them with the same quantity of the other necessaries. On these points we entertain no apprehension, providing it is ascertained that the new direction which may be taken by the industry of the disposeable population, enables them to pay for the food and other necessaries furnished by the working classes. If the industry of the disposeable population does not render them able to pay for food and necessaries at market price, the question assumes a different complexion. If the industry of that class is to be put into requisition for the public service, then the other two classes would not only be deprived of a part of the produce of their industry, but also be burdened severely, to make good the numerous expenses to be incurred, were the disposeable class so employed. Whether the agriculturist and the artisan would plough and sow, hammer and weave, with the same assiduity, under these circumstances, as they did when sterling money was paid for the food and necessaries which they furnished to the disposeable class, is a question which the author does not seem to have

have thought of. In fact, were our author's ideas carried fully into execution, the disposeable population would be entirely supported at the expense of the agriculturist and the artisan.

The author considers the proprietors of the necessaries of life as masters of the country, and as rulers over their own landlords, who, it must be attended to, are previously ranked as a part of the disposeable population. We shall use his own words.

'In arranging the offices of a household, and settling the distribution of its servants, upon what principle should the arrangement be conducted, whether upon the will of the master, or the pleasure and convenience of the servants? Is it not for the master alone, to say how many servants shall attend him in the capacity of footmen; how many shall be allotted to the work of the kitchen; how many to the stables, and how many to the care of his garden and pleasure grounds? If he chooses to dismiss so many of his footmen, and add an equal number to his establishment of servants in the kitchen; upon what principle should this change be resisted? Would it not be ridiculous to say, that the footmen must first be consulted? They dislike the work of the kitchen, and cannot think of submitting to this new distribution of employment. If this be the case, all they have to do is to leave the family. The master, with the ability in his hand to give wages and maintenance to an equal number, will soon get other servants to supply their place, and to acquiesce in those new arrangements that are most agreeable to his taste and convenience.

'The parallel exactly holds with the country, considered as one great household, where the proprietors of the necessaries of life stand in the place of master, and the disposeable population in the place of servants. Upon what principle should the distribution of the disposeable population be regulated? Is it not upon the will of the employers; those who furnish them with maintenance, as the reward and encouragement of their industry? Is it not for these employers to say in what manner employment shall be distributed among the disposeable population of the country? and is it not their undoubted right, to recal them from any one manufacture, and transfer them to any other that may be more accommodated to the taste and circumstances of the times? If any of the disposeable population do not choose to acquiesce in this new arrangement, let them leave the country; they cannot carry their maintenance along with them. This remains in the hands of their original possessors; and a new population will soon come forward, to be supported by the redundant maintenance in the new employments to which masters may choose to direct them.' p. 19—21.

We would here remark, that the proprietors of the necessaries of life, *i. e.* the farmers, are always as eager to dispose of their commodities as their servants, *i. e.* the disposeable population, are to purchase them; and that a falling off in the demand would by

by them be considered as a very great evil. The author, in these passages, has certainly arranged the twenty-five letters of the alphabet in a very neat dress; though the arrangement does not seem highly calculated to promote either his own cause, or that of the public. It has been said, that philosophers, in their closets, are very apt to indulge themselves in fantastical speculations, which cannot be carried into execution. The truth of this saying is strikingly exemplified in the above paragraphs.

Our author's opinion of manufactures is at once ascertained from the following passages.

'It is ridiculous to talk of the manufacturing interest, as if it formed an essential part of the system of the country, or as if its overthrow could plunge the nation into the lowest state of helplessness and imbecility. All that a manufacture can do, is to offer its productions for the benefit and enjoyment of those who may choose to purchase them. The whole amount of the mischief sustained, is the loss of enjoyment to the consumers. A value is often attached to manufactures, independently of the pleasure and advantage that they yield to the person who uses them. It is not their subservience to enjoyment, that constitutes their value in the estimation of many a political reasoner. They are looked up to as an original and independent interest, as possessing in themselves some native and inherent ability, and as if the very existence of the country depended upon their prosperity and extension. I maintain, that after you have described the use of their commodities to the private consumer, you have exhausted the enumeration of their advantages. The wear and consumption of him who uses them, absorbs the full effect of all the industry that has been employed upon their production. They expend all their virtue in administering to the pleasurable feelings of the purchaser. The manufacturer himself does not ascribe his wealth to the employment; he ascribes it to the ability of the purchaser. Government ought not to ascribe any part of its revenue to the manufacture, because it lays a tax upon its commodities. It should ascribe it to the same source, the ability of the purchaser. This ability remains, let the fate of the manufacture be what it may. The sole use of the manufacture to Government is, to indicate a road by which it may arrive at the wealth of its subjects. Let the manufacture perish, and Government will only have to devise some new path to that wealth which is permanent and unperishable. The sole advantage of the manufacture, is not to contribute revenue, but to direct Government where that revenue is to be found; and for this petty, subordinate advantage, will our legislators pursue the most ruinous and mistaken policy, turn their attention from the solid wealth and resources of the country, give themselves up to the most womanish despair, because they see symptoms of decay in the manufacturing interests of the nation, and rest a primary importance on what is not the cause of wealth, but its indication?

'It is very strange, that the extension of our manufactures has ever been supposed to contribute to the strength and resources of the empire. All that it possibly can do is, to contribute a more copious supply of articles of consumption. A manufacture can neither give additional extent to our army, nor can it give additional extent to our means of maintaining it. The fact is, that, so far as it goes, it serves to impair the military strength of the country. It engrosses to itself all the natural price that is paid for its articles. It absorbs part of the wealth of the country. It exhausts so much of the ability of consumers; which ability, had it not been expended on the support of the manufacture, might have been expended on the maintenance of an army. This manufacture must have labourers to carry it on, and it therefore engrosses so many of the disposeable population of the country. It keeps them back from entering into the army; and if we have a military establishment at all, it is not in consequence of manufactures, but in spite of them.' p. 54—56.

Now, we really think that Mr Chalmers talks rather loosely with regard to manufactures. Strictly speaking, he seems to entertain very crude notions upon the subject,—notions that can only attract notice because of their novelty. With some people it is foolish to argue; a statement of facts is a better and more convincing way of refuting them; and, on the present occasion, this may be done in the shape of a short dissertation.

The term *manufacture* simply means, the process of preparing, by art, any raw or unfinished article for useful purposes, or for purposes which the article was not calculated to answer when in its original state or condition. The country which contains the greatest number of manufactures, must therefore be the richest and most comfortable, because it possesses the most abundant supply of the means of gratifying human enjoyment, and for supplying the wants of other countries, where manufactures are either unknown, or imperfectly executed. From an export to these countries, it is enabled to import many articles which its own produce does not furnish. Hence its riches are increased, and the enjoyments of its inhabitants manifestly augmented. Without enlarging upon these matters, we may turn to the state and condition of those parts of Britain where manufactures are chiefly carried on. Let us take either Glasgow, Manchester, Leeds, Sheffield, Birmingham, or any town that may be thought of, where manufactures are prosperous; for the like effects have taken place in every one of them. The first thing which strikes the eye, is an immense number of houses, well built, and occupied by a great number of inhabitants. We see the people, numerous as they are, all busily employed; and upon entering into their houses, we are at once enabled to ascertain, that their condition is comfortable and agreeable. If we turn our eyes upon the

the adjoining country, we discern, that improvements are going on upon every spot of soil within the sphere of manufacturing influence; that new villages are erecting on every hand; that elegant villas are building for the accommodation of the rich capitalists; that enclosures are executing in the most approved style; and that the soil is meliorated and enriched in a degree far exceeding what takes place in the vicinity of other towns, where manufactures are neglected. Now, what is the inference that must follow from the consideration of these circumstances? Assuredly it must be, that manufactures are a source of wealth to every nation where they are exercised; though our author attempts to make us believe, that a bellyful of meat and drink is the alone *summum bonum*, the alone kind of comfort that deserves to be regarded. Meat and drink, to be sure, are very necessary articles; but few countries, whose inhabitants have risen above the savage state, are deficient in the necessaries required to continue existence. Not so with respect to trade and manufactures. Few nations have advanced to great prosperity in these points; while some, witness Holland, have carried on a great trade, when their dependence for bread corn in a great measure rested upon other countries. One third, or one half of the people of Britain might perhaps live tolerably well were trade to be renounced; but what would become of the remainder? They must either expatriate themselves, or continue in the country a burden upon those who had fortunately got a share of the tangible property which continued after trade was forsaken or given up. What is worse, the remaining, or solvent inhabitants of the country would be subjected to the whole public burdens formerly borne by the trading and manufacturing interest; while their ability to bear these burdens was lessened in a direct degree with the decrease of trade and manufactures.

Now, as the trade of the towns alluded to has so much increased the prosperity of their vicinities, let us inquire concerning what would have been their probable state, had they remained without trade and manufactures, or even had trade and manufactures been confined to articles required for home consumption. In the *first* place, it is plain that almost one half of the inhabitants would have wanted employment; and, by consequence, every one of these towns would have contained one half fewer houses than at present: In the *next* place, it is equally certain that the conterminous country would have been far less improved, because the means of accomplishing that improvement would have been wanting: And, in the *last* place, it appears that the aggregate wealth of the country would also have been proportionally inferior to what it is at this moment. Glasgow, for instance,

without foreign trade, might possibly have been a little richer, and more populous, than what it was at the union of the two nations; but, without that amazing extension of trade, which has principally occurred since 1750, that city could not, under other circumstances, have reached to its present state or condition. In fact, every additional house, every additional inhabitant given to Glasgow, is an additional instance of the increased prosperity of the country; and the wealth of these additional inhabitants, whether it consists of money, live stock, houses, goods, machinery, or whatever it be, is so much more wealth to the country than would have been within its bounds, had trade and manufactures not been introduced, and successfully carried on.

In this view of the matter, the manufacturing interest must be considered as a strong and able prop to the prosperity of the country, though we acknowledge that it is not so strong, nor so much to be depended upon, as the agricultural interest. Agriculture is a permanent business, which cannot be relinquished. Manufacture, on the other hand, is fluctuating and unsteady. Still, this difference does not lessen the relative value of manufacture during its prosperity. Strictly speaking, the growing of corn is a manufacture as well as the weaving of cloth; and the only difference which a true economist will recognize is, that, by the one manufacture, food is provided for the belly, and, by the other, clothing is provided for the back. Both manufactures are alike conducive to the public welfare. Those engaged in carrying them on, are of equal advantage to the country, either as contributing their share of public burdens, or as serving by the articles which they manufacture to augment the capital stock of the state. To retrench in the consumption of the articles manufactured, can never be a gain to the public interest. In fact, retrenchment is a loss, in exact proportion with the degree in which it takes place.

It is really wonderful to hear any person calmly maintain, that 'a manufacture can neither give additional extent to our army, nor additional extent to our means of maintaining it.' Both these positions are totally unfounded, and contrary to fact; for, in the *first* place, three fourths of the army are always enlisted in manufacturing towns; and, in the *second* place, those engaged in manufacture, contribute to the public expenses, precisely in the same way, and to the same extent, as is done by individuals of other classes. With the exception of a land-tax, and even of this tax every corporate town bears a share, there is not the slightest difference between the taxes which are levied upon the manufacturer and the agriculturist. So far as respects articles of consumption, the manufacturer may be said to be taxed more severely

severely than the agriculturist, because his means and abilities to purchase these articles are generally of greater extent. We are aware that the author may reply, that it is not the manufacturer, but the purchaser of the goods which he manufactured, that paid these taxes. But were we replied to in this manner, our answer would be, that the grower of corn, and the feeder of beef, are exactly in the same situation with the cloth-weaver and cutler; and that if the weaver and cutler did not pay taxes, so neither did the grower of corn, nor the feeder of beef. In fact, the taxes of the latter are as much paid by the consumers of their produce, as the taxes of the manufacturers are by those people who purchase the several articles which they manufacture.

The second chapter treats of the case of a country which carries on foreign trade, but is subsisted by its own agricultural produce. In this chapter, many arguments, used in the former one, are, in substance, repeated; and once, for all, it may be remarked, that the arguments used through the book, are often not in unison with its running title.

Our author says, 'If we could succeed in proving that foreign trade is upheld, like home manufactures, by an antecedent ability which exists in the country, it would be attended with the overthrow of a thousand prejudices. By some unaccountable perverseness of conception, it is supposed that every commercial country depends for its prosperity on the custom of its neighbours; and that its very existence is linked with its foreign connexions. It is apprehended, that the stoppage of foreign intercourse would be attended with something far more dreadful and alarming, than the loss of certain enjoyments, which the productions of other countries afford; that an immense source of wealth would disappear from the nation; that the land would be filled with bankruptcy and ruin; that the public finances would run into disorder; and that, unable as we were to maintain our naval and military establishments, we would fall a helpless and unresisting sacrifice to the power of an invader. Happy, if I can succeed in demonstrating, that these gloomy anticipations are unfounded, and, by pursuing the destruction of foreign trade into all its consequences, can satisfy my attentive reader, that the whole amount of the mischief is the loss of certain enjoyments, or rather the exchange of one set of enjoyments for another; that the stamina of the country remain entire for all the purposes of defence and security, and political independence.' p. 66, 67.

There is not the slightest doubt, but that foreign trade, like home manufacture, is upheld by an antecedent ability which exists in the country, because neither manufactures nor trade, nor even agriculture, can be carried on without capital stock. But we apprehend that the antecedent ability does not lessen nor detract from the advantages which it accomplishes; nay, on the contrary, that it rather furnishes an argument for carrying on

trade more extensively. But let us inquire into the state of Britain when foreign trade was originally undertaken, which inquiry will furnish us with surer *data* to reason upon, than can be gathered from other sources.

The first foreign trade of Britain consisted in the export of wool; and this trade convincingly proves Britain to have been at that time destitute of the ability to work up wool into cloth, otherwise it would not have been exported into other countries. Very little, either of manufacture or trade, prevailed till the reign of Queen Elizabeth, when, in consequence of many Flemings having settled in the country, manufactures were partially introduced, and a small foreign trade undertaken. These beginnings were made with small capitals; but, being followed by success, the adventurers were encouraged to invest their savings in the same concerns, and to extend the particular manufacture or trade which they carried on. This was the origin of manufactures and trade; and by such means as we have pointed out, were both brought to their present pitch. The antecedent ability of the country to uphold trade two hundred years ago, was very weak indeed. It is at this time of great power, and capable of going through with any measure, which relates either to manufactures or trade. Were our author's suggestions however adopted, this ability would be gradually weakened, and, at last, be completely lost. We will not say that Britain would return to the state she was in when Elizabeth reigned, though we maintain with confidence, that her national strength would be impaired considerably, and that in a very rapid manner. The internal or natural resources of Britain, are not to be compared with those of many other nations. Her strength arises almost entirely from external or artificial means. These our author wishes to lop off, and to place Britain exactly in the same condition that she was in before manufactures and trade were introduced.

The manufacturers of Britain have, for many years past, been contending for liberty to import grain duty-free from foreign countries, thinking, in that way, they could be furnished with bread-corn on easier terms than they can procure it at home. Our author, however, who generally sets himself in opposition to experience, seems to think, that corn, being such a bulky article, could not be brought from abroad, without subjecting the importers to an immense disadvantage. He says,

'I before obſerved of agricultural produce, that it was ſuch a bulky and uncarriageable article as to make the conveyance of it very expenſive. Bring agricultural produce from abroad, then, and you maintain your labourers at a much heavier expenſe than in a country where the agricultural produce is ſufficient for the ſubſiſtence of all its inhabitants. This

This subjects our manufacturer of exported articles to a very heavy disadvantage; the grain which he brings into the country is dearer than before by the whole expense of its conveyance, and of course the price of all the other grain in the country rises to a level with it; he, therefore, brings his goods to market at a greater expense than competitors from other nations, because he is obliged to pay a higher wage to the labourers who are employed in the manufacture of them. In *most cases*, it is in vain to struggle with such a disadvantage. He is undersold: He is forced to break up his concern: He abandons his labourers to the chance of employment in another quarter: They seek their subsistence where it can be found, and are at last compelled to acknowledge their dependence on the taste of our inland consumers.' p. 81.

Now, were our author to be told, that corn may be brought from every country in Europe, nay, that it can be brought across the Atlantic Ocean, and sold as cheap, if not cheaper in Britain, than in the power of the British agriculturist to raise it, he would certainly feel some regret at having committed himself in such an extravagant manner. There is not the slightest occasion to argue this point; for the corn laws, enacted by the Legislature to protect the home agriculturist, are sure proofs of what we are maintaining. No further back than last year, five hundred thousand quarters of wheat were imported from America into this country; and there is little doubt that we would have been favoured with nearly as much this year, had not President Jefferson interposed an embargo. Allow the manufacturers to import as they please, and they will thankfully accept of that liberty with all its concomitant disadvantages.

The author fights a similar battle in the third chapter, which professes to treat of a country importing agricultural produce. In fact, like Cato, whatever he begins with, an ending must be made with something like *Carthago est delenda*. In this chapter, we find the following passages, which furnish a pretty correct sample of his philanthropy.

'The addition which a redundant population gives to the strength and resources of a country, is, beyond all comparison, insignificant, when contrasted with the addition that is afforded by an equal part of our natural population. It is an excrescence that may add to the bulk of the body politic, but with a small addition, indeed, to its vigour and activity, and, like most other excrescences, I believe that it is hurtful; that it is pregnant with a thousand mischiefs, which the very small contribution that it affords to our revenue can but poorly compensate for; that it is a load and an oppression upon the country; and an oppression the more intolerable, as it is valued by government; as it misleads the eye of the country from its essential interests; as it at one time fills the mind of the public with unreasonable alarm, and at another with unreasonable triumph and satisfaction; as it embarrasses the councils of the nation, and has diffused among us the principles of an infatuated policy.

'It is from this circumſtance that, in the minds of many, the exiſtence of the nation has been linked with the proſperity of its manufactures. When the demand ceaſes abroad, or we are underſold in any of the foreign markets, the ſtrength of the nation is ſuppoſed to be at an end. It is very true, that if there be a redundant population, their employment is at an end. They can no longer obtain an equivalent for their induſtry. This equivalent comes to them in the form of ſubſiſtence from foreign countries, and if that ſubſiſtence is withheld, diſtreſs and helpleſſneſs muſt enſue. There will be a diminution of food, becauſe part of our uſual ſupply was furniſhed from abroad. In other words, there will be an overſtocked population, and that population muſt, of neceſſity, be reduced, either by emigrating to foreign countries; by the diſeaſes attendant on ſpare living; or by the uſual rate of propagation being ſuſpended, in conſequence of the dearneſs of proviſions operating as a diſcouragement to marriage. The *redundant population will, in the courſe of a few years, be ſwept from the face of the country;* and the whole loſs ultimately ſuſtained, will be the very ſmall fraction of their income that they yield to the public revenue.

'This is the whole amount of the miſchief, and for this are we to give up the country in deſpair? Becauſe we loſe a poor fraction of the wealth of our redundant population, are we to ſink in terror as if overpowered by a death-blow? Or are we to ſit down in puling inactivity, when the whole energy of our natural population is ſtill before us? No diſadvadvantage in trade, no ſeclusion from the markets of other countries, can effect the entire controul that the nation exerts over the diſpoſeable part of its natural population. Some of them are at preſent employed in working up commodities for exportation, but they are virtually paid by our inland conſumers. If all exportation ceaſes, then all importation ceaſes along with it. The whole amount of the miſchief is the loſs of the imported article; if that article can be diſpenſed with, the ability remains with our inland conſumers to give the ſame ſupport and maintenance as before, to our diſcarded manufacturers.' p. 155-157.

We cannot ſufficiently admire the coolness with which this *reverend* gentleman ſpeaks of ſweeping the redundant population from the face of the country. He abſolutely rivals Richard III.

——'Off with his head!
So much for Buckingham.'

The fourth chapter, ſaid to be on Profit and Capital, goes nearly over the ſame ground. To ſave trouble we ſhall adopt the following paſſage, inſtead of using any illuſtrations of our own. We muſt, however, add, that the deſcription is ſo neatly and correctly given, that it meets with our higheſt approbation.

'What a ſcene of melancholy and diſtreſs to many thouſands of individuals! How cold-blooded the politician that can ſupport it! Let us have none of this unfeeling hardihood! Let us away with this mercileſs ſpirit of innovation! Let it be baniſhed to the cheerleſs ſolitude of a calculator's boſom. It may amuſe him, but it will never, never,

do in practice! Let us spurn at his theories, and persevere in the good old way of our forefathers.' p. 183.

In the fifth chapter the author labours at great length to ascertain what is wealth, though we believe few people are much at a loss to ascertain what constitute either poverty or riches. He does not think that the quantity of agricultural produce furnishes a correct criterion for ascertaining the wealth of a country. A correcter estimate, in his opinion, may be found by the extent of the disposeable population; though, as this class, according to his original classification, contains all the idlers or people not engaged in productive labour, the correctness of such an estimate may reasonably be questioned. But mark the use to which the disposeable population is to be applied, and the author's opinion will not be esteemed altogether so ridiculous. It is from the disposeable population that soldiers and sailors are to be drawn; and in these capacities, he thinks, the whole disposeable population ought to be employed. The horrors of an invading army appal his mind so dreadfully, that he would sacrifice every thing to gather a force together which the whole wealth of the country could not support. On this point we shall explain ourselves afterwards.

The sixth chapter is on taxation. In this chapter the author seems displeased with the present system of taxation, which he considers as not going far enough,—and sagaciously maintains, that taxation is not carried half so far as it might be. In fact, he thinks that so long as any income remains with individuals, the means of taxation are not exhausted. It gives us pleasure to observe such a display of generosity, especially as we trust it will prevent the author from joining with those of his brethren, who seem determined, right or wrong, to claim exemption from every direct tax. Here we are reminded of the saying of a celebrated English dignitary to King James VI. Two bishops having waited on his Majesty, he was pleased to request their opinion, whether he could levy money from his subjects without the consent of Parliament? 'Most certainly,' replied the forwardest of the two, 'for all our goods and wealth are at your Majesty's disposal.' The other was rather shy in making answer; but, when urged by the King, he replied, 'I do not know whether you can legally take my money without consent of Parliament, but believe you may take my brother's, because he has freely offered it to you.'

We are better pleased with the seventh chapter, at least with that part of it which descants upon the impropriety of taxing the lower ranks in a direct manner; though, even here, the author must mount his hobby, and take another scamper at the expense of the manufacturing interest.

'It

'I would aſk thoſe who look up to trade and manufactures, as the creative ſources of a nation's proſperity,—I would aſk them to tell me, what is the purpoſe of trade and manufactures, and what is the amount of their uſefulneſs? I would aſk, what, in the name of wonder, is it that they do, more than provide certain commodities for the enjoyment of thoſe who are able to purchaſe them? Tell me, what more a buckle-maker does to his country, than produce buckles? You may ſay, that he forms part of the manufacturing intereſt of the country; but go in detail over all the particulars of which this manufacturing intereſt is compoſed, and name me, in ſucceſſion, every trade and every profeſſion which it embraces: You ſhall find that the whole amount of the advantage is, that each furniſhes his own article for the enjoyment of cuſtomers. The uſefulneſs of a carpet-manufacturer, conſiſts in making carpets. The whole amount of the uſefulneſs of a watchmaker is, that he furniſhes his cuſtomers with watches. We have extenſive potteries; but the ſum total of their importance to the country is, that they furniſh it with ſtone-ware. Go over every item of this great manufacturing intereſt, and you ſhall find, that the whole ſum and ſubſtance of its uſefulneſs, is to adminiſter to the taſte, and convenience, and luxury of conſumers. It is not fair to make the maintenance of the labourer, or the profit of the ſtock-holder, enter into the eſtimate. It is not the manufacture that furniſhes either profit to the one, or maintenance to the other. It is the ability of the conſumer. The buckle-maker lives not upon his buckles, but upon the price that is paid for them. The watchmaker lives, not becauſe he makes watches, but because he has cuſtomers that are willing and able to purchaſe them. It is neither trade nor manufactures that give maintenance to ſo many millions of the population of the empire. It is the ability of thoſe who purchaſe the articles which trade and manufactures lay before them. Where, then, is the mighty miſchief that is produced by withdrawing the wealth of the country from the ſupport of trade and manufactures? The whole amount of the miſchief is, that you loſe certain articles of luxury and convenience. The man who is veſted with the ability of purchaſing theſe articles, chooſes to abandon the uſe of them, becauſe the higher intereſt of ſecurity demands the ſacrifice. Neither the maintenance of the manufacturing labourer, nor the profit of the manufacturing capitaliſt, ſhould be ſuffered to affect the determination of the cuſtomer. This maintenance is ſtill in reſerve, to be given to the diſcarded population in the form of wages for their ſervice as ſoldiers; and this profit is ſtill in reſerve, to be given to the diſcarded capitaliſts, in the form of a genteel income for their ſervice in the higher branches of public employment. Let it take this new direction that is called for by the circumſtances of the country. The idea of withdrawing the wealth of the country from the maintenance of productive induſtry is a mere bugbear. The induſtry of our manufacturers is productive of luxury. The induſtry of our ſoldiers is productive of ſecurity. The one is certainly as worthy an object for wealth to be expended upon as the other, and

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let it be expended with equal liberality; for why ſhould thoſe brave ſoldiers, who labour for the protection of every thing that is valuable in life, be worſe paid than thoſe labourers who carry on the trade and manufactures of the country?' p. 286-288.

There is not a little sophistry in the above paragraph, but the task of detecting it is not a difficult one. Manufacturers certainly do not do more than provide commodities for the enjoyment of those who are able to purchase them; and pray does the cultivator of the soil, who grows corn and rears cattle, do any other thing? It may be replied, that the cultivator of the soil deals in articles that cannot be dispensed with, whereas the business of the manufacturer is to provide for luxury and superfluous enjoyment. We shall, for argument sake, admit the comparison to be correct, but must insist, that both trades are equally necessary to ensure national prosperity. Though the greatest part of manufactured goods cannot be reckoned in the light of articles absolutely necessary, yet the sale of any one of them is of general advantage. The money of the rich and affluent is given to the manufacturer, who conveys a part of it to the growers of corn and the feeders of beef. These, again, pay a proportion of the money received for their commodities to the proprietor of the ground under whom they hold possession, which enables him to continue his dealings with the merchant and manufacturer. Withdraw the latter from the circle, and in what way will the two others be enabled to live and carry on business? The cultivator might have a bellyful of meat, but he would be without money to pay either rent, or labour, or taxes. If the proprietor took his rent in kind, he might enjoy the same extent of meat and drink; but, in other respects, he would be without money for necessary purposes. He would be in no better condition than the barons of feudal times, who feasted and rioted in their castles when their pockets did not contain a single halfpenny.

But the most curious circumstance, and one not easily accounted for, is that, whilst our author is for discarding trade, he, at the same time, is not only for throwing all the old taxes upon those who in consequence would be without money, but also for imposing additional burdens upon them, to an undescribable amount. Were his half million of manufacturers arrayed as soldiers, twenty-five millions of new taxes would be called for, in order that these soldiers might be fed and paid, while the poor-rates, high as they are, would be augmented prodigiously, by assessments for supporting the wives and families of these soldiers. One half of the country would, in fact, be working or contributing for the other half. We beg pardon; the working or contributing class would be utterly unable to meet the burdens which

would

would fall upon them: hence the country would be ruined, and misery entailed upon every one.

Some good sentiments are offered in this chapter respecting our present army, and the encouragement which ought to be bestowed upon the defenders of the country. In these sentiments we cordially coincide with Mr Chalmers, who, in this particular, seems to entertain views much more liberal and correct, than those lately delivered in a certain house by a dignified personage. Make the situation of a soldier respectable, and there will not be any want of recruits to fill up every vacancy.

The eighth chapter presents us with a consideration of some difficulties and objections, which no doubt is strongly called for; but, instead of removing difficulties and answering objections, the author entangles us among fresh difficulties, and furnishes cause for making additional objections. We shall quote the leading paragraph of the chapter, which contains a pretty distinct view of the doctrines inculcated through the whole book.

'The end of all our discussions is to prove, that a much larger proportion of the wealth of the country may be transferred to the augmentation of the public revenue, and that, of course, a much larger proportion of the population of the country may be transferred to the augmentation of its naval and military establisments. We have attempted to pursue this system of extending the public revenue into all its consequences, and have arrived at a result, far more innocent and gratifying than has ever entered into the conceptions of those who talk of nothing but the misery of taxes, and the intolerable burden of the public expenditure. To those who talk of government grinding the faces of the poor by its impositions, we oppose the conclusion, that the labouring classes of the community are completely beyond the operation of taxes, and that government can only controul the distribution, but not the wages, of industry. To those who talk of the ruin of our trading and manufacturing interests, we oppose the conclusion, that the people, discarded from their former employments, will instantly be translated into the same maintenance and revenue as before, from the proportional extension of the naval and military interests. To those who talk of the impoverishing influence of taxes, we oppose the conclusion, that the whole amount of the mischief is the loss of luxury, and that this loss is nobly compensated by the higher equivalents of security and independence. The whole amount of the consequence, in fact, is to the disposeable population a change of employment, and to the proprietors of the disposeable income, the exchange of one advantage for another.' p. 295, 296.

The precise meaning of this passage is, that the disposeable population of the country should be compelled to take up arms, and that the whole of the public burdens should be thrown upon the other two classes, whom he has distinguished as engaged in agriculture,

agriculture, and providing the second necessaries of life. Perhaps the author may contend, that we have mistaken his meaning, and that the spirit and bent of his work is to instigate the rich to lay aside their luxuries, and to pay the value of them to the government in the shape of taxes. Were he to take up such ground, or offer a defence such as is mentioned, it might be replied, that the interpretation given of his meaning is strictly correct, and perfectly in unison with the doctrines inculcated; and that, if his results and conclusions differ with his premises, the fault lies with him, not with us. But we may admit any meaning which he is pleased to give, and still be able to demonstrate, that the measures contended for are neither practicable nor consistent with the state or condition of the British nation.

We have shown already, that the riches or wealth of one class of society depend very much upon the labour or trade of another; and that, if trade or commerce were either lessened or abandoned, the wealth of the whole community would thereby be considerably curtailed. Now, let us suppose, that the disposeable population (which, for argument sake, shall here be restricted to half a million of manufacturers) were all employed in bearing arms, and that the agriculture of the country went on in its usual way, which it might do for a certain time, because these manufacturing soldiers would consume as much food as when working at the hammer and loom, the first consequence would be, that twenty-five millions of money are required for the payment and subsistence of this immense army. The second, and no less obvious consequence, would be, that new taxes would be required to make up for those formerly paid by the manufacturers, who, in our author's agreeable language, had changed employment. It is difficult to estimate what might be the amount of these taxes; but if we take as *data*, that the present taxes amount to five pounds Sterling upon every man, woman and child within the island, and that the number of those who had changed employment, including their women and children, would not be short of two millions, it may be estimated, that ten millions of new taxes would be called for, over and above the twenty-five millions for the pay and subsistence of those who had changed employment. Now, the taxes at present rather exceed, than fall below, sixty millions; and if twenty-five millions are added, there would be a total of eighty-five millions—a sum far above the rental of the whole landed property in the island, though proposed to be levied upon the luxuries of those who are in possession of that property.

The author may say, it is the luxuries of the rich, whoever they are, that I call to be given up; and that many people are rich

rich who do not possess land. We admit this to be the case under the present system; but maintain, that none could be rich were trade abandoned, except the landed proprietor; and that, even then, he would be poor, comparatively with what he is at the present period. The fault of our author is, that he never considers the whole bearings and consequences of a measure. He argues as if the present situation of things were to remain, without reflecting that the state of society would be completely changed; and forgets that industry would soon slacken, was it recognized as a principle, that the whole fruits thereof, a bellyful of meat and drink excepted, were at the disposal of government.

But were the public to be taxed to such an extent, as to make it necessary to lay every luxury aside, the revenue of the country would not thereby be increased in the way and manner which our author imagines. Let us just investigate what would happen in the case of one luxury, though the like result would happen with every one of them. We shall suppose, that, in consequence of increased taxation, the people of Scotland are obliged to give up the use of whisky. The quantity of this article used, is from three to four millions of gallons; and the duty levied thereupon is from seven to eight hundred thousand pounds yearly. Now, were government to levy such heavy taxes, as to compel the people to renounce the use of whisky, it is plain that the revenue yielded by the article would be altogether lost, whilst the barley crop would remain unconsumed, and the farmer be rendered unable to pay either his rent or his taxes. As for the distiller and his working people, the author would soon find employment for them, though in a way which would only add to the public expenses.

It is unnecessary to follow the author further on the subject of luxuries. It is plain that, were luxuries given up, there would remain nothing to tax, except land, and the articles which it produced. It is known from the Property-tax, that the whole land of Britain does not pay a rent exceeding fifty millions *per annum*. Now, goverment might tax as they pleased; yet it is evident, that a revenue could not be raised from land equal to the national expenditure. Were government even to take the whole landed property of the island into their own hands, the value thereof would be insufficient to defray the expenses of the public. From these things it may be seen, what sort of an economist our author is; and from them the extent of his practical knowledge may easily be appretiated.

It is highly probable that the author will never be Chancellor of the Exchequer; but, should he be destined to fill that important

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ant office, he kindly warns us beforehand concerning the steps which will then be taken.

'Were I minister of Great Britain, I would tax the country up to the fullest measure of the public necessities; and though the voice of obloquy arose from every corner of the empire, I would brave it. He stands there, not as the guardian of our luxuries, but as the guardian of our independence. If he cannot gain our concurrence, he should command it; and if he cannot command it, he should retire from the care of a people who are unworthy of him.' p. 306.

The author forgets, that, in a popular government like that of Great Britain, more people are to be consulted in the laying on of taxes than the minister of the day. What he means by the minister *commanding* our concurrence, we are at a loss to ascertain. It is truly wonderful that such expressions should be used in a book professedly written to rouse the people to defend their constitutional liberties. The inconsistency is so remarkable, that we could not avoid noticing it.

But the inconsistency of the author is in no part more remarkable than in the following passage. After having again and again asserted, that trade was of no use to the country, and urged us a thousand times to forsake and give it up, he says—

'We allow, that trade is necessary to bring money into the country, in the same way that it is necessary to bring wine or oranges, or any other foreign commodity into the country. To pay for this money, this gold and silver which go to the support of the circulating medium, you must continue to work up commodities, and employ so many thousands of your population for this purpose. The gold and silver will come into the country as before, in sufficient quantity for all the purposes of circulation.' p. 318.

We wished to have examined the conclusion with some attention, and to have pointed out the sophistry of the arguments there used, but our limits being already far exceeded, we must content ourselves with one or two desultory observations. An embankment upon the sea coast is not exposed to any danger during calm weather. It is only when storms and tempests prevail, that danger is to be dreaded, or repairs rendered necessary; therefore, was calm weather to prevail constantly, no necessity for making repairs could ever arise. If these remarks are applied to the case of a nation, and peace and war considered as synonimous terms with calm and tempestuous weather, the inference is obvious. During a storm, the owner of the embankment would, with uplifted hands, devoutly pray that the elements might be quieted, and his embankment preserved; but, he would deserve to be considered as a madman, were he to petition for a continuation of the tempest, seeing that the embankment might thereby be destroyed, and his estate be inundated. Precisely in this way would we consider

consider the case of peace and war. Like good weather, peace is always desireable; whilst, like storms and tempests, war is always at variance with human happiness. As the owner of the estate would pray for a cessation of storm, so ought the economist to wish for a termination of hostilities. There does not seem to be any insuperable barrier against the return of peace. Those who have attentively investigated the negociations of 1806, are satisfied that an honourable peace might then have been made, had not a desire to serve Russia and Naples preponderated in our councils. Be this as it may, we are quite satisfied that Britain is exposed to greater danger from a continuation of the war, than from a cessation of hostilities; and, had our author been expressly employed by Buonaparte to accelerate the ruin of this happy island, he could not, in our opinion, have fallen upon a more effectual way to gratify his employer, than by writing the book which at this time has occupied our notice.

Though our limits are already far exceeded, we cannot avoid adding a few general remarks, and with them shall conclude this examination.

In the *first* place, as Britain, under the influence of the present system, has reached a pitch of prosperity far exceeding that of any other nation, the utmost caution should be used when determining upon measures, however plausibly recommended, which ultimately may affect the welfare of the social body, whether considered in its rural, manufacturing, or commercial capacity. These branches of national industry, are so closely entwined, that an injury done to one of them, must less or more be felt by the whole. Each of them is beneficial to the state; and the accumulated benefits flowing from them are the real causes of British prosperity.

Secondly, As the taxes or public burdens of Britain are of great amount, and as, upon their productiveness, the stability of government very much depends, every measure should be avoided which may tend to abbreviate the sources whence these taxes are gathered. In particular, as the safety of the British Empire would be endangered, were the slightest blow given to public credit, strict care that the sources of revenue are not drained or cut off, becomes a primary duty with every person who feels an interest in maintaining our national prosperity.

Thirdly, As the taxes of Britain, with one or two exceptions, are levied in a very equitable way, falling upon every person almost in direct proportion with his ability to sustain them, it would be unwise and impolitic to increase any of these taxes to a height which might oblige the public to renounce the use of the articles so taxed. An excessive taxation of this nature, while it apparently

apparently increased, would in fact diminish the amount of the national revenues considerably. It would dry up the sources whence revenue flowed; and, by throwing out of employment, those formerly engaged in preparing or manufacturing the article or articles given up, would lessen the number of the people from whom taxes are collected.

Fourthly, As the military system is neither of a nature nor complexion greatly calculated to promote moral happiness, it becomes a question of considerable importance, whether that system is not already carried to a length which in time may occasion a material change in the national character. A camp may, no doubt, be viewed as affording the like encouragement to trade, as is furnished by a town or place where a concourse of people is assembled; but, viewed in another light, the assemblage at a camp, cannot be estimated as adding either to the riches of a country, or to the moral character of its inhabitants. Let it be supposed, that half a million of men are withdrawn from the business of manufacture, and placed in the army, in addition to the present regular force. We are not to expect these men are to furnish the same support to population, as when engaged in the sober pursuits of private life. On the contrary, there is cause to dread, that a nation or country which kept such a number of its effective men under arms, would, in a generation or two, become nearly depopulated. The first half million might perhaps be obtained; but, when these were 'killed off,' a second supply would not easily be procured. In fact, what is stated by Mr Chalmers on this point, is visionary and impracticable.

Fifthly, Considering agriculture as the parent of all other arts, we must dissent from every measure which, either directly or indirectly, is calculated to impede its progress and advancement. Were the consumers of agricultural produce to be lessened in number, or were a greater share of public burdens devolved upon cultivators than fairly falls to their share, it is quite plain that their endeavours to cultivate the necessaries of life, would not only become feeble and limited, but that their means and abilities to pay public burdens, would also be abridged and curtailed. We are, therefore, in duty bound to lift up our testimony against the doctrines delivered by our reverend author, seeing, if they were acted upon, or carried into execution, a change in the rural and political œconomy of the country would be brought about, sufficient to ruin one half of its inhabitants, without conferring the slightest advantage on the remainder.

Lastly, Let Britons beward of those who attempt to depretiate the value of foreign trade, or who recommend measures which infallibly would bring about its destruction. This country has

been raised to an unexampled pitch of prosperity, by carrying on trade extensively with almost every quarter of the known globe; and, from local circumstances, is admirably calculated to become the emporium of the whole trading world. Political evils may, for a time, obstruct and lessen the extent of this trade; but, so long as the trade of other nations is exposed to similar evils, no serious danger is ultimately to be dreaded. Under the difficulties which naturally accompany a state of warfare, it is not the business of Britain to increase those difficulties, by artificial or political regulations. Instead of putting the slightest restraint upon trade, it is sound policy to give every facility to its operations which can possibly be communicated. Not so with our adversary. He has little or no trade to lose, therefore cannot suffer materially, from a temporary suspension. With Britain, the case is very different. She has a great trade to lose; therefore, the wisest steps which can be taken, are such as are directly opposite to those he has adopted. He is carrying on war against the trade of Britain, knowing that the nation is invulnerable in every other point. By imitating his measures, thereby attempting to controul him, we, in fact, give strength to his endeavours. Perhaps the wisest course which this nation can adopt, with regard to commercial matters, would at all times be the one which is directly contrary to the course previously chalked out by our formidable antagonist. N.

Statement of the Numbers, the Duties, the Families, and the Livings of the Clergy of Scotland, drawn up in 1807. *By the Rev.* William Singers, *Minister at Kirkpatrick Juxta.* Edinburgh, Park. London, Harding.

The question concerning the appropriation of Teinds, has been of late much agitated; and, in this pamphlet, a pretty correct view is given of the sentiments entertained by the *Scottish Clergy*, upon that important question. Mr Singers seems to consider the whole teinds as belonging to the Clergy; though, on this point, his arguments do not seem to be supported either by the law or practice of the country. It is evident that heritors have a certain right in the teinds, because they paid a certain value for them; though it is equally evident that they hold them, subject to the burden of providing expedient stipends to the clergy. This has always been the opinion of our best lawyers, though very contrary to the doctrines inculcated in this pamphlet. N.

BRANCH

BRANCH III.

Agricultural Intelligence.

The months usually considered as constituting the spring quarter, were this year absorbed by winter; and, of consequence, the slightest vegetation was not discerned, till summer burst forth with a splendour much greater than is usually displayed at its entrance. From the second week of November to the first day of May, a few days of March excepted, the severities of winter were constantly experienced. Even in April snow storms prevailed, which rivalled those of December and January, and caused immense damage to the flock-masters.

Notwithstanding the months of February and March, with the exception already made, were cold and ungenial in every respect, yet the weather was friendly to the seed process, being generally dry; while the ground, from repeated frosts, was admirably disposed to receive the harrow with more facility than would otherwise have happened. The oat and bean seed were therefore executed under the most favourable auspices; though the seed grain remained much longer in a dormant state than usually occurs. The braird, however, was not in the least injured by this inactivity; but, when it did appear, displayed an aspect of the fullest health and vigour. Some of the bean fields may perhaps furnish an exception to this character; but any apparent debility with them must be attributed more to imperfect seed, than to the inclemency of the weather when the seed was deposited.

The fallow wheats, especially those upon thin or moist soils, are considered much below par, and in a state which does not promise a heavy crop at harvest. From information communicated, it would seem, that the quantity of wheat sown for the current crop, cannot be rated above two-thirds of what was sown in the preceding year. This remark is applicable to Scotland only, it being understood that the quantity sown in England does not differ materially from the ordinary extent. Much more land, however, is occupied with barley than for several years past; and this circumstance threatens to be a grievous loss to the farming interest, should distillation from grain be prohibited.

Markets for grain have not been amiss through the quarter; and there is some cause to dread, that the stock in hand will rather be below, than above, what is required for supplying the country through the summer months. The price of wheat has been tolerably steady; but barley and oats have advanced considerably since the date of our last publication. It was well known beforehand, that these grains, particularly the latter, were not plentiful; and that, at all events, a degree of scarcity might occur before the next crop was harvested.

The demand, however, has been so greatly increased since the report of the Sugar Committee was made to Parliament, that prices have advanced much more than was expected, or would have happened, had that report not been made. The distillers had previously agreed to stop work on 10th May; and their stock of grain was regulated accordingly. When the Committee reported, that it was expedient to prohibit distillation from grain after the 1st of July, in order that the great quantity of sugar on hand might be disposed of, the distillers, one and all of them, agreed to depart from their original resolution, and to continue at work till the time when it was supposed a prohibition would take place. In this way the prices of barley and oats were greatly enhanced; and the scarcity, so much dreaded by the Committee, was almost to a certainty brought about. Under the impressions which seem to have guided the Committee, it would have been wiser to have recommended an immediate prohibition, than to have postponed it to a term when the evil, at least for this year, must be altogether irremediable.

We have examined the minutes of the evidence taken before the Committee with considerable attention, and are unable to determine therefrom, with precision, whether the object of their appointment was to relieve the sugar-merchant, or to ascertain the character of last year's crop. To be sure, the majority of questions put to the witnesses are so much directed to the latter object, that a stranger might be led to infer, that the goodness or badness of the crop was the immediate business under their consideration. With regard to the crop of last year, we have never entertained two opinions. It was undoubtedly a short one for every kind of grain, except wheat; and the opinion given at the time, has been confirmed by the state of markets, since autumn, over the whole country. But, will the recommendation of the Committee avert the threatened evil? Surely it cannot; for the deed will be done long before the proposed prohibition can be enforced. It may undoubtedly have effect upon next year's markets, but none upon those of the present year, unless it be of a mischievous nature. We are loath to investigate the consequences more minutely, because nothing of a consolatory nature can flow from such an investigation.

The agriculturist may, however, receive a vast deal of information from the minutes of evidence; and had our limits allowed, it was intended to present our readers with copious extracts. Suffice it to say, that several abstract questions, of great importance, seem to have been discussed when the witnesses were examined. In particular, the relative utility of different modes of cropping was sedulously investigated. Indeed, the Committee seem to have bestowed uncommon pains to find out, whether spring wheat, barley, or oats, were the most valuable crops. It was rather unfortunate, however, that the time of sowing spring wheat was, for this season, passed by, before these points were investigated; so, of course, the result could be of small importance in settling the propriety of a prohibition

hibition meant to subsist only for a single season. These things, we dare say, were not thought of by the Committee, otherwise they would have had greater influence on their proceedings.

The subject is now before Parliament; and if that august body come to any determination before this Number is published, we shall not fail to notice the same in a postscript. When the report of the Committee was moved in the House, a great many able speeches, *pro* and *con*, were delivered by the members who took an interest in the discussion. It would have done one's heart good to have heard the Chancellor of the Exchequer talking so eloquently about the scarcity of last year's potatoe crop, especially at a time when the season of using potatoes was so nearly passed by, that no danger was to be dreaded from a scarcity of that root. Indeed, the season of malting and distilling is now also so nearly over, that it is a matter of little importance to the country, whether the prohibition takes place or not for this year. It is upon the produce of next crop that the measure can operate; though it is truly surprising, that the whole reasoning is employed to prove, that the prohibition was necessary, because the last crop was a defective one. The defectiveness of the last crop has nothing to do with the merits of a measure which relates entirely to the succeeding one; and till it is ascertained whether that crop is good or bad, we are in duty bound to pronounce the recommendation of the Committee as injurious to the agricultural interest of Great Britain, and as calculated to relieve the West India cultivator at the expense of the British farmer.

During the discussion which took place on this business, the conduct of the distillers has excited a good deal of surprise. It was naturally supposed, by well meaning people, that these gentlemen would be in arms to oppose it; that they would imitate the conduct of the manufacturers of pig-iron on a recent occasion; and would put their whole force in motion (and their force is not inconsiderable) against a measure which, at first sight, seemed to be directed against their most valuable interests. Simple folk reasoned in this way; but the able and intelligent gentlemen, who constitute the distillery body, thought in a different manner. They saw, or thought they saw, an immediate benefit from the prohibition; therefore, threw cold water upon every attempt to oppose it. With a similar view, namely, to serve their private interest, they forced on distillation by every possible mean, in order that a large stock of spirits might be provided before the day of prohibition arrived; and, at the time they were purchasing every boll of grain within their reach, gravely talked of the expediency of the prohibition, in order that a sufficient quantity of bread corn might be retained in the country!! If the prohibition is enacted for a limited time, a doubt need not be entertained concerning the advantages which it will confer upon the gentlemen concerned in the distillery trade; but, on the other hand, if the prohibition is not carried, it is equally certain that their recent speculations will not prove beneficial. People differ on the point, whether profit or loss should be considered as the most suitable reward; and really and truly it is a point which we do not venture to determine.

For other particulars connected with this important buſineſs, we refer our readers to the copy of a letter from a Scotch farmer to his repreſentative in Parliament, given under the head of *Scotch Intelligence.*

The fat cattle and ſheep market has advanced conſiderably, eſpecially for the latter article, which is exceedingly ſcarce. A great mortality was occaſioned amongſt young ſheep and lambs in all the higher diſtricts by the April ſtorms; and the conſequences will be felt, not only in the current, but in ſucceeding years. Few lean cattle have yet been marketed; but it is expected that thoſe in decent order will ſoon meet with a demand. A very great portion of winterers are, however, in bad condition, owing to the uncommon ſcarcity of fodder in many diſtricts. Indeed, unleſs a ſprinkling of turnips is given to cattle after February, it is an impracticable taſk to keep them in any thing like a proper condition. Their blood gets ſo thin, that one half of the ſummer is conſumed, even though their paſture ſhould be good, before improvement of any conſequence is brought about.

We inform our readers with a good deal of ſatisfaction, that a queſtion relative to fences, exactly of the ſame nature with the one mentioned in our Magazine for Auguſt 1806, (Vol. VII. p. 382.) was lately decided in the Court of Seſſion. The queſtion was brought by advocation from the Sheriff of Haddingtonſhire; and the Court ſeemed to be unanimouſly of opinion, that there was no ſuch thing as a common law of Scotland applicable to a tenant being obliged to ſupport fences, if he had not come under an obligation to that purpoſe in his leaſe. This was the ſum and ſubſtance of the opinion delivered in this Magazine; and we congratulate the tenantry of Scotland upon ſuch a material point being eſtabliſhed in their favour. The Earl of Hopetoun, and his tenant Mr Dudgeon, were purſuers, and Mr Robert Howden, tenant of Weſt Garleton, defender.—Counſel for the purſuers, Meſſrs Robert Blair and Thomas Thomſon; Agent, Mr Hugh Bairnsfather, writer to the ſignet.—Counſel for the defender, the Honourable Henry Erſkine, Mr John Dickſon, and Mr David Cathcart; Mr Andrew Steele, writer to the ſignet, agent. The queſtion was brought before the Court in an excellent and judicious petition, drawn by Mr Dickſon, who, on that occaſion, diſplayed an intimate knowledge of the rural economy of Scotland, ſeldom exceeded by any of his contemporaries.

A gentleman, to whom this Magazine has, on numerous occaſions, been under important obligations, requeſts us to offer a premium of FIVE GUINEAS for the moſt approved Eſſay (the CONDUCTOR to be judge) upon the following queſtion. 'What is the beſt rotation of crops for light land (wheat being one) in a late and rather a moiſt climate?' It is a deſideratum to have wheat ſown, under ſuch circumſtances, by the 20th September; and the chief object of the queſtion is, to aſcertain the moſt eligible preparation, or the moſt ſuitable preparatory crop for wheat on ſuch a ſoil, and in ſuch a climate, as is condeſcended upon. Nothing is required reſpecting the management of the crops; but it is expected that proper arguments will be brought forward

forward in defence of the ſyſtem propoſed. Competitors are requeſted to conſider themſelves as placed in a farm not in good order, and to give eſtimates of the expenſe neceſſary to bring it into a ſuitable condition, together with calculations concerning the returns which may be obtained under a judicious execution of the ſyſtem which may be recommended. To render theſe things more eaſy, the ſize of the farm is ſtated at 200 acres Scots meaſure. Competitors for this premium, will therefore be ſo good as tranſmit their eſſays, under cover, to the Publiſhers, on or before the 20th October next, with a ſealed note, containing the motto prefixed to their eſſay, together with their addreſs; which note ſhall not be opened till judgment is pronounced. It is probable that the ſucceſsful eſſay will be publiſhed in the December Number of this Magazine; but, at all events, it will be notified, at that time, to to whom the premium is adjudged. The unſucceſsful eſſays will be left with the PUBLISHERS, and delivered to any perſon who brings a copy of the motto prefixed to the one which is ſought after. ——*May* 31.

SCOTLAND.

Banffshire Quarterly Report.

ALTHOUGH the weather, during the greater part of this quarter, was uncommonly cold and boiſterous, the operations of the field have been carried on with conſiderable deſpatch. Severe froſts now and then occaſioned ſome interruptions; but the land was for the moſt part dry, and in tolerable condition for receiving the ſeed. No other favourable circumſtance, however, can be reported. About the 14th ultimo, the weather preſented all the appearance of a ſecond winter, which continued for ten days with the utmoſt rigour, the ſnow being as deep as at any period ſince Martinmas. During this time, a very ſerious alarm prevailed for the preſervation of cattle, as the ſtraw, which had been given but very ſparingly for ſome time before, was nearly exhauſted; whilſt hay, by no means a plentiful article, was all bought up, in the courſe of a few days, at 16d. and 18d. per ſtone. Thoſe who could procure nothing elſe, were obliged to apply again to the whins, although in a faded ſtate. The weather providentially ſettled about the 24th, and vegetation proceeded ſo rapidly, that, in the courſe of eight days, a very conſiderable relief was experienced; but had the ſtorm continued a week longer, the one half of the cattle could not have ſurvived it. Several beaſts, however, died; and the generality of them are in ſuch a reduced ſtate, that they cannot ſoon be in marketable condition. Seed work is nearly concluded; and, although the grain was long of ſpringing, is now making a good appearance.

This, however, only applies to the lower part, and moſt favourable ſituations of the county. The upper diſtricts are in a moſt deplorable ſtate. The loſs, both of cattle and ſheep there, has been conſiderable; and labour is in ſuch a backward way, that the one half will not be got executed. Seed is likewiſe very ſcarce, and

so weak, that it cannot be depended on. The oldest man alive does not recollect seeing the country in such a distressed situation;—tenants daily coming to the landlord, and threatening to renounce their tacks. From the small quantity of grain that remains unsold, a general scarcity is much dreaded before harvest. Seed oats have sold at 25s. and 30s.; barley 30s. and 35s. per boll of 128 Scots pints; and oatmeal, in retail, at 2s. per peck of 8 pounds Dutch. Wheat only brought 30s. per boll of 88 pints Scots, and hitherto not much in request.

No cattle dealers have yet made their appearance, and fat cattle have not yet exceeded 8s. per stone, sink, although beef sells in the market at 7d. and 7½d. per lib. Few or no servants being yet engaged for the ensuing half year; on that account, the rate of wages is not yet ascertained; but a considerable reduction is expected, which, considering the state of matters at present, would be only a natural consequence.——*12th May.*

Letter from a Gentleman in the Country.

'The period is now approaching, when that voracious insect the gooseberry caterpillar will, by its depredations, set most of the gardeners in the kingdom to work, each with his favourite nostrum, for its destruction.

'While Mr P. H. is busy with his *tobacco liquor*, and Mr A. Z. with his *sulphur vivum*, permit me to request such of your readers as may not have a thorough conviction of the infallibility of these *effectual remedies*, to make trial of a simple method which succeeded with me in extirpating that noxious vermin, when every other with which I was acquainted had proved abortive.

'The moth was one (or perhaps both) of the kinds described in vol. II. page 369 of your Magazine, and generally made its appearance about the end of May. A few days after observing it, upon inspecting my bushes, I found a considerable number of the leaves, especially those near the bottom, and on the south or most sheltered part of the bush, covered on the underside with its eggs. It occurred to me, if these were removed, (which, without injury to the bush, they might easily be), that it would be an immense saving of labour, instead of picking or shaking the caterpillars off, after they had spread over the whole bush, (a way recommended by some of your correspondents, but one, in my opinion, hardly practicable). I accordingly set a boy about picking them off; and causing him, with one hand, hold up a branch, so as to expose the back of the leaves, while the other was employed in picking them into a basket to be carried away, he in a short time cleaned every bush in the garden. This operation, however, I found necessary to repeat every week, until the moth disappeared; but, in the end, had the satisfaction of finding it attended with complete success, and, upon the whole, with much less trouble than any one who had not made the experiment could imagine.'

West

West Stirling Quarterly Report.

From the favourableness of the weather, the labours of spring have been carried on with little interruption, and finished in a style of uncommon excellence. The weather began to settle about the middle of February; and a drought, accompanied with a degree of frost, and interrupted occasionally by a transient fall of snow, continued till the beginning of May. Though the ploughing was, from the variableness and inclemency of the weather during winter, in a very backward state, yet, meeting with little interruption afterwards, it proceeded with so much rapidity, that the seed process began some weeks earlier than usual. Beans were sown, in the lower district, about the beginning of March, and the oat seed finished there about the end of it. It was apprehended that the severity of the frosts would have injured fields early sown; and, on this account, in the higher district, sowing was suspended during the last half of March. From the appearance of the braird, it is now evident, that, in dry grounds, no injury has been sustained; and, on wet soils, the loss is scarcely perceptible. In the latter case, there is certainly some hazard; and, when drainage is ineffectual or impossible, it is prudent to delay the sowing of wet grounds till that of the dry is finished. As a general rule, it is certainly clear, that the farmer should disregard all set times of sowing established by former indolence, and commence this operation so early as the season will admit, as in most soils the seed has sustained no damage from the severe frosts of this spring, and as, in our northern latitude, grain requires as much climate as possible to bring it to full maturity.

As the oat-seed was generally finished in the higher district by the middle of April, the planting of potatoes succeeded without delay, and was concluded so early as the end of that month—a circumstance which will ultimately be found of infinite advantage to the quality of the crop. Many people delay the planting of potatoes till the end of May, and allege that the crop is very productive. The experience of last year's early frost has taught the errors of of that practice, and the necessity of early planting, as, in the latter case only, the crop is found plentiful and palatable.

A general tendency appears to introduce, and to extend, in this district, the culture of wheat. Within these few years, almost every person has sown it after potatoes, and the unfavourable conclusion of last harvest did not deter them from this practice. Their small patches were not all sown till Christmas; and, from the joint influence of wet soil, climate, and season, their seed was unprofitably lost. Several considerable fields, in the vicinity of Kilsyth, were sown with wheat after hay. By the beginning of March, scarcely a plant was left by the grub; a striking proof of the danger of introducing wheat on a strong soil, except after a bare fallow, and of the impossibility of being freed from the grub in that situation by any weather, however variable, or by any frosts, however

ever severe. In the Carse, where wheat is better and longer understood, the seed process was early finished; and the appearance of the crop is very promising.

Barley, which sold heavily during winter, has risen to an enormous price, in consequence of the intended bill for prohibiting its use in distillation. One popular reason for the substitution of sugar, was the existence of a scarcity of grain in the country, and the impossibility of receiving supplies from abroad. It was thence inferred, that luxuries should be prohibited, that the necessaries of life might be increased. No sooner was it become apparent that this bill would be carried into a law, than every distiller bought up barley at any price, and is manufacturing it with the utmost vigour, knowing, from the inferiority of spirts from sugar, malt spirits must soon bear a premium price. The bill, therefore, has defeated every purpose of general utility, and, in a year of acknowledged scarcity, has greatly increased the consumption by distillation. Barley sold currently in Stirling from 40s. to 44s. per boll; and in the western parts of the county, barley for seed has risen to 47s.

The importation of oats from Ireland, however large, is now at an end. The price of meal has, of course, begun to rise rapidly. Two weeks ago it sold at 30s.; now 33s. is offered readily. Within these two last weeks we have had a considerable quantity of rain. Vegetation has at length commenced with vigour; the braird is in general promising. The pasture is assuming the appearance of verdure; and the hay promises a most abundant crop. Last evening we had a great deal of thunder, accompanied with heavy rain; which it is to be hoped will be critical, and introduce fair weather, otherwise strong soils will suffer considerable injury by the continuance of rain.—*May* 16.

Letter from a Scotch Farmer to a Member of Parliament concerning the Prohibition of the use of Grain in the Distilleries.

'The business, upon which you do me the honour of requesting my opinion, is of great importance to the country, and may be viewed in various lights; though, in every one of them, the attendant consequences seem to be of an unfavourable nature. To prohibit distillation from grain, when there is no scarcity of bread corn in the country, appears to be a strong measure, and one not called for under existing circumstances. According to my views, the measure will be vastly injurious to the proprietors and occupiers of land; inconvenient to the gentlemen who have embarked large capitals in the distillery trade; afford great encouragement both to the home and foreign smuggler; while, in all probability, it will be of small benefit to the sugar merchant. On each of these points, I shall trouble you with a few remarks, trusting they may be usefully employed in preventing such a pernicious measure from receiving legislative approbation.

'In the *first* place, the measure will be injurious to the proprietors and occupiers of land; because, in some degree, it will deprive the

the latter of the means of making good the engagements which they have entered into with the former. Here, it may be stated, that the farmer will be deprived of the surest and steadiest market for his barley; consequently, the article must either remain upon his hand, or be sold at a price greatly below what it would have brought had the trade remained on its former footing. From *data* tolerably correct, it appears, that the value of barley used annually by Scotch distillers, is not less than 400,000*l.* Sterling, which is a sum fully equal to *one-tenth* of the rental of Scotland; therefore, if the distillers are prohibited from using grain, a market will be wanted for a portion of produce which, upon an average, pays two shillings in the pound of our rents. It would puzzle the most sagacious economist to find out another market for the article, or to say in what way the deficiency thereby created in the means of paying rent can be made up. The breweries in Scotland are already fully supplied, and would hardly use an additional boll, were barley reduced fifty per cent. in value. The consumption of barley bread is every day lessening, and the manufacture of pot barley is not on the increase. Under these circumstances, what is the farmer to make of the barley formerly worked up into spirits by distillers? He need not go to England with it, for the like want of market must there ensue. Nay, the probability is, that the superplus of English barley will be poured into Scotland; and, from superiority of quality, find a market, when our own is unsaleable. No resource would, therefore, remain for the Scotch farmer, but to give his barley to hogs and other bestial; and, whether in this way he could make good his engagements with his landlord, need not be elucidated.

'The subject may be considered in another point of view, and in this one it will not appear as of less importance to the public, than when considered as affecting the farmer's private interest. The injury that will be done to good husbandry, by the measure under consideration, is incalculable. It is well known that barley is the best stepmother for rearing grass seeds, and that on light turnip soils no other variety of grain can be cultivated with so much advantage. But, if barley cannot be sold, it will not be cultivated; and, of course, other grains, not so favourable to good husbandry, must be cultivated in its stead. Wheat or oats may be substituted; but the question is, whether any of these grains can be raised with advantage upon light soils, which had previously carried a crop of turnips? I suspect such a substitution would not be found advantageous, even upon the richest soils; but, if not advantageous upon the richest soils, what must it be over three-fourths of Scotland, where wheat is little known, and where barley or bigg, and oats, are the only grains cultivated? In such situations, barley or bigg is very properly sown as a first crop after a summer fallow, or after a crop of turnips or potatoes; but, take away barley or bigg, and the upland districts would carry no other grain than oats;—a system destructive of good husbandry, because it is founded upon the most wretched principles that can be imagined.

'I

'I must now call your attention to the circumstances of last season, whereby the usual quantity of wheat was prevented from being sown, and of course a far greater breadth of ground is this year occupied with barley than has happened in many of the preceding ones. The increased quantity sown, would probably, at all events, have lessened the price of barley next year considerably; but, if the market is shut up, whence the best purchasers were obtained, the consequences must be doubly serious. Had the report of the Committee been brought forward at an earlier period, these consequences might, to a certain extent, have been avoided. But, to interdict and shut up the barley market, after the seed for another crop has been sown, seems neither to be a wise nor a just measure, and therefore it must be regarded as one which the wisdom of the legislature ought not to sanction.

'In a word, the proposed prohibition will be highly injurious to the proprietors and occupiers of land; and much more so to those of Scotland than England; because, in the latter country, a great deal more barley malt is used in public and private breweries, than in the other. Had dearth or scarcity prevailed, the measure would have produced none of the consequences described, because the want of one kind of grain always provides a market for another. But, under existing circumstances, barley must, next season, either become an unsaleable article, or obtain only an inferior price to its usual value, when compared with that of other grains. To a certain extent, the depression of barley would influence every other grain market. It is well known, that a small deficiency of produce causes markets to rise much higher than the actual deficiency would seem to warrant. In fact, it puts the market under the government of the seller. Upon the like principles, an extra quantity of grain thrown into the market, will effect a greater reduction of price than at first sight might be expected.

'In the *second* place, the measure will be inconvenient to the gentlemen concerned in the distillery trade. I need hardly mention, that some expense must be incurred in fitting up their works for the sugar distillation, and that many of the utensils, now in use, will become a dead stock. You will also attend, that these gentlemen are in a great degree unacquainted with the processes of distillation from sugar; therefore, may reasonably presume, that the trade, in the first instance, would not be a gainful one. But, be these things as they may, there is a certain part of Scotland where sugar would not be used. There, grain would be distilled in spite of a hundred thousand acts of parliament; and the spirits thereby produced, would be smuggled into the low country districts, to the ruin of the fair dealer, and the injury of the revenue.

'In the *third* place, the measure would afford great encouragement to the home and foreign smuggler. I have already hinted at what might happen at home; and the like consequences would inevitably take place with regard to the smuggling of foreign spirits, because the trade would instantly become a more profitable one.

Ardent

Ardent spirits, in some respects may, from custom and habit, be considered as a necessary of life with the people of Scotland; and for those distilled from grain, they seem to entertain the greatest predilection. Molass or sugar spirits, has long been held by them in abhorrence, and it may justly be believed that they would hazard a great deal to procure their favourite beverage. No doubt, their taste might be changed, but the period of a year would be too short for bringing it about. Of course, smugglers on the coast, and smugglers from the hills, would be welcomed with open arms, and every aid given to a trade destructive to good morals, and of manifest injury to the whole community.

'In the *fourth* place, from a consideration of the above circumstances, I am much inclined to believe that a great part of the distillers will rather cease from working for a season than carry on business under the proposed plan. The market is at present pretty well stocked with spirits, and the trade will be pushed to the uttermost till the term of the prohibition arrives, which will cause an accumulation of stock sufficient to serve the country for a considerable time. Should a cessation of work take place for a season, the price of spirits will advance of course, and this advance will necessarily occasion a decrease of consumption. The distiller will therefore feed the market, and likely may make the same profit from the sale of one gallon as he formerly did from two. To him the cessation may therefore be of advantage. Not so to the public; for the deficiency of revenue must be made up by levying other taxes; whilst the agriculturist, in many places, will, by the cessation, be rendered unable to contribute any share. If I am right in these particulars, the extent of benefit to be conferred on the sugar merchant may be easily appretiated.

'Upon the whole, prohibiting distillation from grain, when there is no scarcity of it in the country, will be injurious to agriculture, because the agriculturist will thereby be deprived of a sure and steady market for a chief article of his produce. It will also occasion inconveniency to the distiller, and serve to encourage smuggling; whilst the probability is strong, that the measure will convey very little relief to the sugar merchant, for whose sake these evils are to be brought about.

'When you reflect upon those things, I am almost sure you will join me in thinking, that the steadiest opposition should be given to a measure calculated to bring numerous evils upon the country, especially when the chance of doing good to any one is so slender as not to be calculated upon.'

Letter from the District of Carrick.——May 23.

'During the course of the preceding three months the weather has been uncommonly favourable for the purposes of agriculture. Dry weather commenced about the beginning of March; and for nearly the space of two months we had not a single shower. There was a considerable deal of frost during that period, but seldom to such a degree as to stop the plough for a whole day. Its worst effect was upon vegetation, which it completely checked. Since the end of April, the weather has entirely

entirely changed; and for the ſpace of at leaſt three weeks there has been a tract of as kindly genial warmth, with refreſhing ſhowers of rain, as ever happened at this ſeaſon. The vegetation has been ſudden and rapid. In ſo far as depends upon ſeaſon and his own labour, every thing looks favourable at preſent for the farmer; and that hope, by which his nerves are uniformly braced, is cheriſhed and invigorated. The price of grain, too, is rather looking up; and, from the ſtate of the world around us, there is no great probability of much depretiation for ſome time to come. The bill at preſent before Parliament, prohibiting the diſtillation from grain for a year, may no doubt affect the ſale of barley during that ſpace; but, conſidering the entire ſtoppage of importation of foreign grain, it cannot extend to any thing material; and beſides, when we take into conſideration the urgent neceſſity of the meaſure to the Weſt India trade, upon which the general proſperity ſo much depends, and the diſtreſſed ſtate of the manufacturing world, without bread or the means of getting it, one would ſuppoſe that theſe things ſhould go a great way to ſilence clamour, and induce a cheerful ſubmiſſion to this partial evil, if it were no more than out of compaſſion to ſuch a numerous body of our fellow-citizens.

The weather that has been ſo extremely favourable to the agriculturiſt, has been equally prejudicial to the grazier. The dry froſty weather quite cut up the paſture; *keeping* of all kinds became ſcarce and dear; and, till of late, there was no demand for ſtock almoſt of any kind. For a ſhort time paſt, dealers have ſet out; but ſales made, were at ſuch an inferior price as leaves little or nothing for the payment of rent. For ſome time paſt this has been ſuch a loſing buſineſs, that ſeveral farmers and cattle dealers have been obliged to give way. Yet we have not felt all the evils of the ſeaſon that were experienced in other places. We have heard of immenſe falls of ſnow and ſtorms, overwhelming the country where it happened, and threatening almoſt univerſal deſtruction. There have indeed been partial falls in this country, but to no great extent, and doing little more injury to the outlying ſtock than ſuſpending vegetation. The lambing ſeaſon, upon the whole, has been rather favourable. The wages of farm-ſervants are little or nothing leſſened. They know their advantage too well to allow of this. Such great numbers of young people are required during ſummer and harveſt for cutting and winning the moor hay, and cutting down the crop, both of which muſt be done in their ſeaſon at any price, ſervants are too wiſe and attentive to their own intereſt not to take advantage of this neceſſity.'

Upper Annandale Quarterly Report.

The ſeaſon has been unuſually diſtreſſing to the ſtore-farmers. Winter ſet in very early and ſevere, and prolonged its ravages to a very late period. Many lambs have periſhed; great loſſes have been ſuſtained among the year-old ſheep; and ſome aged ſheep have died of poverty, as farmers call it, while the ſtocks, in general, are far from being in good, or even decent order. The late fine weather muſt prove highly grateful and refreſhing to ſuch of the lambs and diſeaſed ſheep as ſurvive;

vive; and the prices of thoſe which can be got into decent order are expected to run high. Hay was to be found throughout the ſeaſon for cattle, though ſome flocks were not quite ſo well wintered as uſual.

The riſing corns look well; and oats appear thick enough which remained above ſeven weeks in the ground before the braird appeared. Graſs promiſes a decent crop. Labour continues rather to riſe, though houſehold ſervants' wages have declined a little. Grain and meal have riſen of late, and ſeem to keep up. Barley, indeed, throughout the year, has been comparatively low; and for ſome time a buſhel of it ſold for leſs money than a buſhel of oats. The views of the ſheep farmers are truly uncomfortable at the preſent time; and hardly any of the lately ſet farms are affording returns equal to the rents and charges.——*May* 24.

Aberdeenshire Quarterly Report.

Since last report the weather has been in extremes, ſometimes very fine, and at other times exceedingly ſtormy. On the whole, ſeed-work was executed in good order: in particular, the ſeaſon for bear, which did not commence till the 1ſt of May, has been uncommonly fine. The ground wrought generally well throughout the month of March. In April, there was one ſtorm after another, with ſo little interval, that the ſeed ſown could not look up. The fields and patches of wheat ſown here and there throughout the county, were, during this inclement ſeaſon, thinned and deſtroyed ſo much, as ſcarcely to promiſe any crop. Since the firſt of this month, when vegetation began to take place, one thing of great conſequence has been aſcertained, namely, that the fears of many, with reſpect to the braird, were agreeably diſappointed. The ſeed, both of oats and bear, has come up as thick and full as in the beſt of years; and, at preſent, the young plants are looking exceedingly well for the ſeaſon.

From the length of the winter this year, (and it conſiſted of *eight months* of ſtormy weather), it was foreſeen that provender would not ſtand out for the ſtock on hand, till the graſs ſeaſon arrived. Many cattle, in fact, eſpecially in the upper part of the county, died for want of food; and thoſe farmers who have not loſt cattle altogether, encountered great trouble and expenſe in procuring ſubſiſtence for them. Scarcely any man recollects having ſeen the country, at ſo early a period of the year, as bare of every article of beaſts meat as at preſent. Not one article in the ſtack-yards in general; the fields of graſs, though ſufficiently promiſing, kept down by an over-ſtock, too early put thereon, through neceſſity; graſs parks taken from one fifth to one third higher rents than formerly, and that moſtly by farmers—the graziers, or thoſe who had been in the practice of renting ſuch fields before, being often beat out by thoſe in ſo immediate a want of the article.

Grain has advanced conſiderably in price during the laſt quarter. Bear and oats and oatmeal are now ſold from 28s. to 30s., and ſome parcels conſiderably higher. Cattle in good condition are preſently ſold fully at laſt year's prices; the ſmall and lean ſtock conſiderably lower.

lower. Sheep, except those ready for the flesher, are very low, and in small demand. Many of them have been lost during the winter, and those remaining are far back of condition. The price of labour is somewhat lower; but the difference is not material.

The Income-tax will be found very distressing, if not ruinous, to such as have embarked in extensive farms, perhaps with capitals rather under what might be required, than otherwise, whose assessment, in place of being at 10 *per cent.*, may perhaps be at 30 or 40 of their income. It may be said, that for what money they have borrowed they can easily deduct the 10 *per cent.* from the interest. But no argument can be more fallacious; as the very demand made by those who have small capitals, in nine cases out of ten, would be instantly to pay the principal sum. It may be legal; but whether it is so or not, it is looked upon as highly tyrannical and oppressive to clap on a high additional rent, at a random shot, upon tacks of more than seven years standing, and charge it with 10 *per cent.*, making the occupiers *gentlemen of property*, who have no title or wish for such distinction.——*May* 24.

Wigtonshire Quarterly Report.

The weather, during the spring months, was unusually dry, accompanied by many weeks of strong easterly wind, almost without interruption. This allowed farm-work to proceed with rapidity, and much early sowing was accomplished. In every instance, perhaps, this was not prudent; for even after April was well advanced, the harrow was occasionally unable to make an impression on the soil, on account of the intensity of the frost. Hence it is to be apprehended, that the early sown crops will not turn out the most equal. Upon the whole, this district has completed the operations of the season earlier than formerly, and in very good style; yet vegetation has been long retarded; and the earliest artificial grasses are barely fit for use, as a scanty article of green food. The fine showers we have had of late, however, must prove in every respect beneficial.

From the extensive disasters which befel last year's potato crop, much loss and inconvenience have been sustained.

Grain markets have advanced rapidly of late, and little remains on hand. Not so the cattle market; and, in this respect, our situation is sufficiently distressing.

For some time past, the establishment of new cattle-markets has here been the order of the day; so much so, that we have now no fewer than *five nominal* institutions of the kind, occurring regularly at as many different places, viz. Wigton, Newton-Stewart, Whithorn, Glenluce, and Sand Mill, in the vicinity of Stranraer. There is no inconsiderable display of zeal in all this, though the business is perhaps overdone.——*May* 24.

Ross-shire Quarterly Report.

The storms of winter abated about the middle of February in this district. Field operations were then further behind than they had been

been for many years; but a succession of the most favourable weather for the labours of seed-time having unremittingly followed during March and April, the seed was put into the ground in the best order, and at an earlier period than customarily happens. This period, though favourable to seed-work, was, however, quite the reverse to vegetation. It was excessively cold; the frost often so hard as to prevent harrowing in the mornings; and the cold blasts of hail, with a scanty subsistence, consigning the miserable cattle to destruction. Hundreds of them have perished by famine; and the sheep flocks in the Highlands have not escaped, particularly the lambs, amongst whom there has been a considerable loss. The most genial weather commenced with this month, which quickened vegetation, and advanced it in a degree unequalled. The young corns generally look well; but wheat is thin in many fields. Fat cattle are scarce, and sell readily at 9s. 6d. per Dutch stone, sinking the offal. Lean are very little in request, even at 50 *per cent.* under last year's prices at this time. Rouping of stock has become general, in order to get quit of them. Whether it is for the ultimate interest of either exposer or purchaser to grant a long credit, (from twelve to eighteen months), in a country where money is scarce, and thereby enhancing the price beyond the market value at the time, must be determined by after markets. Be that as it will, it is pleasant to observe, that the detestable practice of employing *white bonnets* (false bidders) is going into disuse; the exposer generally reserving one offer to himself on each beast.

Barley and oats are scarce; the former in great request, at from 38s. to 40s. per boll; Potato-Oats 36s. per five firlots; Wheat in demand at 38s. per Linlithgow boll; Oatmeal scarce, at 36s. to 37s. per 9 Dutch stones. Hay never was higher than 18d. per stone of 22 lib.; but, latterly, it could not be got at all, every ounce being eaten up.—*May* 25.

Forfarshire Quarterly Report.

From the date of last report to the 18th of April, the weather was uniformly cold and dry, frequently accompanied by frosts, with the exception of a few mild days about the 10th of March. Ploughing was, consequently, executed, and the oat-seed finished, in the most perfect manner; but vegetation much checked. A fall of snow (uncommonly heavy at the season) on the night betwixt the 18th and 19th April, stopped the sowing of barley for a few days; but then the weather seemed to have undergone a change for the better; and since that period, the season has been truly excellent for finishing the barley-seed, working the fallows, and other purposes.

The winter sown wheats have not so promising an aspect as last year at this time; the long continuance of bare frosts in spring has rendered them thin on the ground and stinted in appearance, in many instances; therefore, a full crop of that grain cannot be expected on soils of a middling and inferior quality.

Sown grasses in general look well, and grass parks, contrary to

expectation, have nearly maintained the last year's rents. Cattle are on the rise, and, from the plentiful appearance of grass, a still greater one is expected.

Wheat sells at present for 38s. to 40s. per boll, and barley and oats near the same price.—*25th May.*

Fifeshire Quarterly Report.

THE cold frosty weather which concluded the preceding quarter, continued until the beginning of May, at which time grass had scarce begun to spring; straw had become so extremely scarce, as to advance in price to the immoderate rate of 1s. per stone, and hay to 1s. 8d. and 2s. per ditto. Young stock were, therefore, in poor condition when turned out to grass. Work horses were generally supported on potatoes; which article continued at the low price of 5s. per boll, until the middle of April, when the demand for seed raised them to 10s. per boll, at which they still continue. The quantity planted this year has been considerable. Grass parks have fallen 20s. per cent.; lean stock fetch very moderate prices, and do not pay for rearing.

The oat and barley-seed were finished under favourable circumstances with all farmers who seized the proper period. Since the 1st of May we have had gentle showers, and favourable, mild, weather; so that the grass and corn fields are springing with unchecked luxuriance. A good deal of wheat, especially in wet land, is thrown out by the frost, and appearing to be thin; though what is in life is vigorous, and of a fine colour.

Turnip sowing is commenced; no season can be more favourable for that crop. The ensuing hay crop promises to be abundant; and, so far as the season has gone, appearances are so favourable as to furnish room for hoping that an abundant harvest will follow. Little of the last crop remains in the barn-yard; there is some wheat, but hardly any oats or barley, and the prices of both, as well as of oatmeal, continue to rise.

If the bill to stop the distillation from grain was intended to avert the danger of scarcity, it is too late by almost three months to accomplish that purpose; as, at the 1st of July, almost the whole barley will be previously distilled into spirits, and the prohibition of no use to prevent scarcity. But, in the event of an abundant crop of barley next year, it may deprive the farmer of a market for it, and injure deeply the agricultural interest. Should a failure of next crop take place, no person will pretend to say, that distillation from grain ought to be permitted for a single day.—*25th May.*

Tweeddale Quarterly Report.

THE last week of February and two first weeks of March being favourable for field labour, much work was executed, and even a good deal of seed put into the ground in fine order. But, from the middle of March to the last week of April, nothing could be executed in a satisfactory way, the intervening five weeks being almost a continuation of frost and snow; the former often so severe as to pre-

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vent even ploughing. About the 18th and 20th of April, just as the lambing season commenced, a severe snow storm set in, accompanied with intense frost and cold north winds, which not only stopt every kind of field work, but, from the inclemency of the weather, bad condition of the ewes, and uncommon sterility of the pastures, occasioned the loss of a greater number of lambs, and even hogs, than perhaps hath happened for many years past; and, what added much to the general distress, the fodder was universally exhausted, whilst the cattle were in such a miserable condition as to cause the death of many. In this county live stock of every description were never in a more critical situation than at the end of April; and had severe weather continued eight or ten days longer, it is impossible to say what evil consequences would have followed. But, on the 1st of May there was such a sudden and seasonable change, that, in a day or two, the weather, from displaying the severity of winter, assumed the genial mildness of summer, and the effects were no less wonderful. The grain sown on the 1st of March appeared immediately above ground, after having lain concealed for two months; a circumstance scarce remembered. The grass fields assumed an universal verdure, which gave instant relief to thousands of starving animals; and perhaps a more favourable interposition of Providence in that respect could not have taken place. The weather through the whole of this month has been of the most propitious nature, with a regular supply of rain for all the purposes of vegetation, and not so much as any way to retard the operations of the field; and at this date, rural concerns of every kind look promising. On account of the severe winter and spring, the corn-yards are completely exhausted; there is still a considerable quantity of meal on hand, but little rough grain can now be brought to market.

On account of the failure of the turnip crop in winter, this county has afforded little for the butcher; nor will the lambs soon supply that defect. The grain market is looking up, especially for barley, little of which can be spared. The prices are generally as under. Oatmeal 8*l.* per load of 16 Dutch stones. Barley 36*s.* to 40*s.* per boll. Little or no sale for young cattle, or even for milch cows; and oxen have a dull sale, at inferior prices to last year's. Good horses are not much reduced in price; but any sheep yet sold are about ten per cent. lower than last year's prices.—26*th May.*

Berwickshire Quarterly Report.

Our weather during the months of March and April, though excessively cold and unfriendly to vegetation, proved very favourable for carrying on field operations, scarcely a day's interruption by snow or rain having intervened between the date of last report (Feb. 22d) and the 16th of April, when we had a fall of snow, followed by another on the 18th. On the 21st a storm took place, which exceeded any thing of the kind in the remembrance of the oldest inhabitant, at so advanced a period of the season; a thin feathering of snow had fallen during most part of the forenoon, but between two

and three o'clock it began to thicken rapidly, while the wind increasing, blew quite a storm at north,

'And foul and fierce,
Stern winter drove along the darken'd air,'

and continued with unabated fury till the approach of morning on the 22d. All over the low part of the county, and also on the high land towards the sea, the snow fell in a damp sleety state; but amongst the hills receding from the shore, it was drifted to a great depth, and being just about the middle of the lambing season in that district, occasioned a very serious loss of lambs. May commenced with a most salutary change of temperature, and the progress of vegetation has since been very rapid; on the 5th we had a thunder storm accompanied with heavy showers, and, in some instances, with hail of such an uncommon size as to kill the young lambs.

Spring wheat was begun sowing about the 20th of February, and notwithstanding the inferior produce of last year, has this season been sown to a very considerable extent. From the conclusion of the wheat seed to the middle of April, the greatest part of the spring corn was got sown; and seldom has the soil wrought more freely under the harrow, or the different grains been deposited in a dryer bed.

The loss of young sheep in Lammermuir has this season been very great; and as, from their late harvest and long continued winter, little or no ploughing had gone forward till March and April, seed-work was necessarily thrown far behind in that district.

It was generally imagined, at the date of last report, that, from the great quantity of spoiled turnips, a glut in the fat markets would take place towards the end of March; but, fortunately, a good many fields of turnip had (on account of the very high prices demanded last autumn) been left unlet; which reserve coming in at that critical period, enabled many of the feeders to hold on, and tended, in a great measure, to avert the necessity of premature sales;—so that markets, though dull, never experienced any great or sudden depression; and since the appearance of grass, they have advanced considerably, best beef being now from 8s. to 9s. per stone, sink; do. mutton from 8d. to 9d. per lib. do., avoirdupois weight.

Cattle in forwardly condition for grass, have met with a ready sale; but hitherto, there has been little or no demand for either lean cattle or sheep to the English pastures. Grass enclosures have been letting from 10 to 15 per cent. below the rates of last year. Young clovers are looking well; but winter wheat has not in general a promising aspect.

Corn markets have kept advancing ever since the commencement of this quarter. Prices at Berwick, May 21, were;—Wheat from 50s. to 55s.; Barley, from 40s. to 44s.; Oats, from 33s. to 36s.; Beans, 50s.,—per boll of six Winchester bushels. There is but a very small proportion of the crop now in the farmer's hands: indeed, some stack-yards have been quite empty since the middle of April.

At

At the annual general meeting of the freeholders of this county, held at Greenlaw upon the 30th of April, the resolutions of the county of Ayr respecting the expediency of applying to the Legislature for relief from the unequal pressure of the property-tax on tenants occupying land in Scotland, were taken under consideration, and approved of; and the meeting were unanimously of opinion, that an application should be made to Parliament for removing this hardship, by adopting a fairer mode of assessing the occupiers of land in Scotland; and for that purpose requested Mr Baillie their representative, to concur with the other counties of Scotland in any application to the Legislature for obtaining what shall be thought the fairest way of assessing the tenants of this country.

At the recent hiring markets for single servants in this county, wages for the ensuing half year were considerably under the rates of last season.——*May* 26.

Fiars of Berwickshire, Candlemas 1808, *for crop* 1807.

Wheat per Boll -	L. 1	7	6	p. Linlithgow Wheat boll.
Peas per do. - -	1	11	0	
Merse Barley - - -	1	12	0	p. Linlithgow Barley boll.
Lammermuir do - -	1	10	6	
Rough Bear - -	1	8	0	
Merse Oats - - -	1	4	6	
Lammermuir do. - -	1	3	0	
Oat Meal p. boll of 8 st. Dutch	1	5	6	

Dumbartonshire Quarterly Report.

The months of March and April were uncommonly cold to the very last, which retarded vegetation long; but as they were also dry, every kind of grain was got sown in fine order, and with little interruption. So late was vegetation, that the hedges were scarcely green on the 1st of May; but since then, the weather has been warm and genial, with occasional rains, which has pushed on every thing very much; and the present appearance is tolerably promising. Wheat, with few exceptions, is thin and late; but has improved greatly since this month began. Much less than the usual quantity of this grain could be got sown; and a great proportion was sown very late. Hay promises to be an abundant crop; but the rain which improved it this month, is thought by many people to have occasioned, or at least increased, the damage sustained by the oats from the cut-worm, which in several places in this district has caused considerable loss, particularly of oats sown early on ground broke up from grass. Very little bear has been sown, which is easily accounted for by the discussion of the sugar distilling question in Parliament: but the dung formerly applied to the bear has served to increase the usual breadth of potatoe land. Pasture grass of every description never looked better.

Cattle and sheep have come through this severe season tolerably well, and without so much loss as might have been expected. Many of the former are very lean; but fodder could always be had in plen-

ty; for, in the end of April and during May, hay has been selling so low as 10d. and 11d. per stone. Some sales of lean cattle have taken place at the late fairs, but not to any great extent, and the prices are moderate. Markets for grain have started of late, particularly for oats and barley; but it is to be hoped there will be a sufficient supply till the new potatoes come in. Beef and mutton, as usual, sell higher at this season.

The farming interest in this county, have taken up the business of the Property-tax, and resolved to petition Parliament for a repeal of the rule by which it is assessed on occupiers of land. The same business was also brought forward at the annual meeting of the county on 30th April last, when the resolution to petition was approved of, and the influence of the landed interest promised for its support. If all the other counties of Scotland were equally unanimous, there seems little reason to doubt of redress being obtained. A copy of the proceedings alluded to is annexed.——26. *May.*

'*Property-Tax on Farmers and other Occupiers of Land.*

'*Dumbarton, 26th April* 1808.

'At a general meeting of Farmers and other Occupiers of land in the county of Dumbarton, called by public advertisement in the Glasgow newspapers, for the purpose of considering of an application to Parliament for obtaining redress from the erroneous and unequal assessment laid upon them by the Property-tax act now in force;

'Mr WILLIAM WALLACE, tacksman of Inverouglas, Preses.

'The Meeting, after the most mature deliberation on the business, for the consideration of which they were this day convened, and concurring unanimously in approving the general principle of a tax on property, the idea of which, it is believed, originated at first in the county of Dumbarton, cannot, however, help expressing their most unqualified disapprobation of the manner in which farmers and other occupiers of land in Scotland are assessed under the present Property-tax act, by making the rents they pay, or the valuation to be put on grounds in the proprietor's own occupancy, a criterion of their profits; than which, nothing can be more fallacious.

'It is notorious to every person who is the least versant in rural affairs, that the profits of farmers are equally, if not more fluctuating and uncertain than any other classes of the community, all of whom are only taxable according to their actual gains: but, as the law presently stands, the farmer is taxable, and must pay a certain sum of tax on a supposed income; while, at the same time, he may be an actual loser by his business. The farmers and other occupiers of land in this county think it their duty, at this critical juncture, to take this public method of declaring their willingness to pay their just and equal share of every public tax, and particularly the present Property-tax, according to their real profits; but they conceive it would be equally partial as unjust to assess them with the payment of a tax, without a corresponding income, unless (which they cannot for a moment

ment suppose to be the case) it is wished to place them on a more unfavourable footing, in this respect, than the rest of their fellow-subjects.

'It is, upon the whole, therefore, the opinion of this Meeting, that the farmers and other occupiers of land in Scotland ought, in justice to themselves, as well as from a real regard to the interests and improvement of the agriculture of the country, which must suffer most seriously if the present rule of taxation is persisted in, to take every constitutional method in their power for obtaining an alteration of the law as it now stands; and that they may be assessed according to the actual amount of their profits only, as is the fact with the whole other classes of men, whether merchants or mechanics, in this country.

'The Meeting therefore resolved unanimously,

'1*st*, That they will concur with their brethren in the other counties of Scotland, in every lawful measure that may be thought necessary for obtaining the desired alteration of the law; and particularly, the Meeting appoint that, for this purpose, a petition to Parliament be now drawn up, and subscribed by those present, and left open for others who may be disposed to concur in the measures now and hereafter to be adopted.

'2*d*, That a Committee of this Meeting be authorised to lay a copy of these minutes before the general meeting of the Noblemen, Gentlemen, and Justices of the Peace for the county of Dumbarton, advertised to be held on the 30th instant, and to request their support and concurrence, jointly or separately, in such application to Parliament, or otherwise, as they may think most fit; their own interest as landholders being most materially concerned in the measure, as well with regard to their tenants as themselves, for the grounds in their own occupancy.

'3*d*, That the said Committee do transmit copies of these minutes to the Members of Parliament for the county and district of burghs with which the county is connected, requesting they may use their united influence and exertion in obtaining redress.

'*Lastly*, The Meeting appoint the Preses, Messrs Parlane Macfarlane, James Turner, William Turner, and William Grant, any three of whom to be a quorum, as a standing Committee of their number, to correspond with the other counties, or societies of farmers and occupiers of land in Scotland, who may feel themselves aggrieved by the present unequal mode of taxation, and to concur with them in every constitutional measure for redress; and that these minutes and resolutions be published in all the Edinburgh and Glasgow newspapers.

'WILLIAM WALLACE, Preses.'

'At a general meeting of the Noblemen and Gentlemen, Freeholders, Commissioners of Supply, and Justices of the Peace for the county of Dumbarton, the 30th day of April 1808 years;

'There was laid before the Meeting the minutes and resolutions of the farmers and other occupiers of land in the county of Dumbarton,

met at Dumbarton on the 26th current, 'for the purpose of considering of an application to Parliament for obtaining redress from the erroneous and unequal assessment laid on them by the Property-tax act;' which being read over and considered by the Meeting, they not only approve of the resolutions, but agree to support the petition to Parliament, and to give every further aid to the measure in their power; and the following Committee is hereby appointed to take charge of the business, viz. Sir James Colquhoun of Luss, Bart., Mr Hamilton of Barns, Mr Campbell of Succoth, Captain John Rowet Smollet of Bonhill, and Mr Dennistoun of Colgrane; three a quorum, and Mr Dennistoun Convener of the Committee.

'The Meeting also appoint a copy of the resolutions and of this minute to be transmitted to the county's representative in Parliament, and to the Lord Advocate of Scotland, with all convenient speed.

'James Dennistoun, Preses.'

Letter from Falkirk, May 27th.

'The singularly cold dry weather during the greater part of last quarter, presents two very opposite views of rural matters to the reporter, which will be of more or less consequence, according to various local circumstances.

While highly favourable in a clay district like the Carse, to Spring seed work, the very perfection of which, in such situations, depends on its being performed when the land is dry, it proved no less unfriendly to vegetation every where. Even so late as the 1st of May, the district scarcely ever exhibited so universally sterile an appearance. In many instances the seed was five or six weeks in the ground without discovering an appearance of vegetable life. With the commencement of the present month, however, fine mild showery weather took place, which produced a very sudden change in the whole vegetable world, which, since that period, has pushed forward with uncommon vigour. By the late rains, the hay crop will be completely secured, where there is not a real deficiency of plants, which does not seem so great as might have been expected after such severe spring frosts. The wheat crop in this district, upon the whole, is unpromising. What was late sown, even on fallows, is not good; that after potatoes and drilled beans, generally wretched; many fields of such have been ploughed up. Some of the fallow fields, however, that were early sown, that is, during the two last weeks of September, and first of October, particularly the former, are extremely luxuriant. I do not recollect the advantage of early sowing so very conspicuous as this year. Even at this advanced season, from the very inspection of a field, you can nearly fix the period at which it was sown; for, as that was early, so is the crop proportionally good. Barley was put into the ground in high order, and, rain following almost immediately afterwards, that grain brairded beautifully, and is extremely promising; as are also beans, which never looked better. With respect to oats, however, matters are not so favourable. They have been materially injured

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by the depredations of the grub; in this neighbourhood we scarcely ever suffered more generally from that cause. The oat fields are almost every where covered with immense flocks of crows,—a pretty sure mark of the prevalence of the grub. They have probably been of more use, in destroying a part of these noxious vermin, than the utmost exertions of night-rolling, which, I believe, is the only remedy usually practised, and, I suspect, not a very efficient one. Our grain markets were pretty steady till lately. Wheat, indeed, had been uniformly low and dull throughout the season, and a full supply was considered to be on hand. Barley was daily falling, as the natural death of the distilleries was fast approaching, and oats, which were unquestionably a short crop, and consequently high priced, had probably nearly reached their *maximum*; but no sooner were the words 'prevention of scarcity,' and 'stopping the distilleries,' pronounced in Parliament, than it seemed to act as a sort of watchword, to raise the prices of grain. Wheat started considerably; the effect on barley was necessarily more sudden, and greater; and oats, of course, felt the general impulse. Such seems to have been the first effect of an injudicious, ill-timed, and uncalled-for measure, which has been greatly aggravated by the increased activity of the distillers, who have eagerly purchased every boll of barley and oats they could lay their hands on, to mash down before the 1st of July, plainly foreseeing in the measure a golden harvest to themselves, whoever might ultimately be the sufferers; and in this way, the very evil which Parliament proposed guarding against, has in fact been anticipated, as matters would, in all probability, have gone on pretty smoothly till harvest.

This rise in the grain markets, it may be remarked, is really of little advantage to the farmer; for, at this season of the year, the greater part of his crop is usually in the hands of the corn-dealer. The farmer may, however, console himself with the prospect of holding on a considerable proportion of his barley crop next year through the whole season!!

Although the rent of arable farms seems as yet to have suffered no depression, there has been a considerable fall in grass parks, not less than 15 or 20 per cent., owing no doubt to the heavy losses sustained by the absurd rents given last year, which indeed appeared like madness, from the outset, to reasonable people.

Letter from Glasgow, 28th May.

'Since our last letter of intelligence, we have had large importations of oats and meal from Ireland, and the south of Scotland, but very little of any other grain.

'From the resolution of the distillers to continue working beyond the time at which they had agreed to stop, barley has advanced to a very high price; for the same reason, together with the scarcity in the East country, all along the Frith of Forth, oats have followed the like course, and advanced very considerably. From every appearance, both these sorts of grain, together with beans, will be extremely

tremely scarce, before we can have fresh supplies of our own growth; and, from the present posture of affairs, our expectations cannot be very sanguine of foreign aid.

'Wheat, owing to the large stock on hand, was for a time unaffected with the high prices of oats, beans and barley; but, about eight or ten days ago, it began also to look up, and the advance, especially on British wheat, may now be quoted fully four shillings per boll. Nor do we think that this grain has yet reached its height; a further rise will in our opinion take place, unless a speedy reconciliation is effected with America, from whence, in that case, large supplies would be received. Although we had an early seed time, we cannot boast of an early spring. The first sown oats were from six to eight weeks in the ground before they could be said to braird. Many of those sown on cold wet lands suffered much from the severe frosts which we experienced in the months of March and April. Some on very fine lands and rich leas, have also been materially hurt by the grub worm; and a few of the fields, injured from both these causes, have actually been ploughed up again, and resown with barley. Oats, however, upon the whole, have a tolerable appearance; and even those which were injured have come on wonderfully since the 1st current, when the weather set in fine.

'The late sown wheats have an healthy appearance; those of an early date are not so promising, many of the fields being thin, and of a sickly aspect. We sow but little barley in this neighbourhood; but, what was sown this season, the seed-time having been favourable, is coming through in the finest order. The potatoes have been planted during the best of weather. The grasses of every description please the eye with the richness of their verdure, and promise to be an abundant crop.

'State of Glasgow Markets, 28th May.

Foreign Red Wheat	35s. to 40s.	p. boll Linlithgowshire measure.
Scotch do. (New)	38s. — 42s.	
Do. do. (Old)	.. — 43s.	
English do. - -	39s. — 44s.	
American do. - -	40s. — 44s.	do. of 240 lib.
Irish Mealing Oats	38s. — 40s.	do. of 264 lib.
Do. inferior do.	30s. — 32s.	do. Renfrewshire do.
Scotch Potato do.	34s. — 38s.	
Do. Small do.	30s. — 32s.	
Do. Barley - -	40s. — 42s.	do. Stirlingshire do.
Irish Do. - -	38s. — 40s.	
English Beans -	40s. — 42s.	do, do. do.
Scotch do. - -	38s. — 40s.	
English Grey Peas	40s. — 42s.	do. do. do.
Scotch Oatmeal -	.. — 34s.	do. of 140 lib.
Irish do. - -	33s. — 34s.	
Fine Flour - - -	65s. — 66s.	per sack of 280 lib.

Mid-

Mid-Lothian Quarterly Report.

The spring quarter has been uncommonly favourable for seed-work of every description; but vegetation has been so backward, that, until the 1st of May, there was little appearance of growth. Since that date, a happy change has taken place. The weather has been quite continental, or steady, accompanied with moderate showers; and every thing has sprung, as it were, into existence at once. With a continuance of such weather, there are no circumstances whatever that do not warrant the hopes of an abundant harvest.

Yet, with these cheering prospects, a bill is proposed, and brought into Parliament, for prohibiting the distillation from barley next season, professedly from the dread of scarcity. But the authors of this bill do not hesitate to allow distillation to go on for a month longer than usual this year; thereby precipitating the very mischief which the bill professes to prevent. The agitating of this ill-judged measure, has already given a start to the prices of barley and oats, which otherwise would not have taken place. The distillers, wishing for a year's jubilee, and using their utmost influence to promote it, have been indefatigable in distilling an extra quantity for some time past, and in purchasing grain, at any price, for the purpose of carrying on their operations as long as they may be permitted; by this means stocking themselves with spirits to such an extent, as will infallibly make their fortunes at the expense of the community.

Much praise has been bestowed on the Committee of the House of Commons for their report; and very deservedly, so far as their researches have gone. Relative to Scotland, their information has been too limited. They ought to have been informed, that the people of Scotland have a predilection for spirits distilled from barley, and a dislike to spirits the produce of sugar; and that they will never taste a drop of the latter, while any of the former can be obtained. The distillers know this well; and none of them will distil from sugar next season; because it is clear to a demonstration, that they will gain more in one year by standing still, and doing nothing, than they would gain in two by distilling.

It is different in England; for there, whisky is not used before it is converted into gin; and perhaps the same process may be continued with the extract of sugar. But there will be no distillation in Scotland, unless it should be for the English market. Hence, of course, the West India merchant will find no relief by distillation in Scotland; while the revenue will suffer a diminution of not much less than a million Sterling; for which deficiency, the Chancellor of the Exchequer will be under the disagreeable necessity of imposing new taxes upon the very people who will suffer by the measure.

But what will be the situation of the barley grower? When the last heavy duty was imposed upon malt, barley became unsaleable, and the growers were under the necessity of consuming it with their horses

horses and other domestic animals; a mode for which the commodity is very ill calculated, and for which purpose no farmer in Great Britain can afford to raise it. The consequence of which was, that it became absolutely necessary to diminish the quantity sown, so as the produce might be proportioned to the demand, and a fair market price be obtained. This system was continued from 1803 until now. But the barley of last crop having met with a more ready sale than any other grain, induced farmers in every district to sow more of it this season than for several years past, and for which, once more, they will in all probability be deprived of a market.—Speculative men ought never to interfere with the growers of the first necessaries of life. By doing so, the usual operations of agriculture are unhinged, and a train of bad consequences ensue, which it may require years to correct; whilst the public are sure to suffer.

It is exultingly stated, that the West India merchants pay three millions of taxes to Government, and therefore ought to be supported. But this is a downright fallacy; for neither sugar nor rum pay duties in the islands, nor even when they come home, until they are wanted for consumpt. It is the consumers, therefore, who pay the taxes; not the planter, or merchant. It has also been stated, in the most lofty strains, that the West Indies take goods from the mother country to the extent of between five and six millions Sterling. But the inhabitants of the United Kingdoms take commodities of theirs to a much greater amount, besides paying the duties for them. The business is merely a matter of barter, and the balance is greatly in favour of the West India merchants.——*May* 29.

East-Lothian Quarterly Report.

The weather, during the months of February, March, and April, was generally dry, almost always cold, and altogether hostile to vegetation. In fact, the year may be recorded as one which was without a spring quarter. But the deficiency was amply made up by the month of May, which has been uncommonly genial and friendly to the growth both of corn and grass. Matters in this way were restored to something like their ordinary state; and the fields, in general, display an appearance not inferior to what takes place when previous circumstances have been much more favourable.

The dry, cold weather of March, suited admirably well for preparing and drilling the bean lands; and the frost was rarely so intense as to stop the harrowing of oats, at least in the low district of the county. Under these circumstances, the fullest opportunity of doing justice to every branch of work was enjoyed; and the braird of the spring sown grains, though uncommonly slow, proved to be close; whilst the aspect of the young plants, with the exception of some oat fields seized upon by the grub worm, is almost in every case healthy and vigorous.

Many of the wheat fields, particularly those that were summer-fallowed, must however be reported as thin of plants, whilst those that remain

remain in life are ſickly, and of an unpromiſing appearance. The beſt wheats are thoſe which ſucceeded drilled beans and clovers. A conſiderable quantity of wheat was ſown in February and March, which is in a thriving way, having been greatly favoured by the heat and moiſture of May. Taking the county in the whole, leſs wheat is ſown for this crop than for any ſince 1803.

The preparation for turnips is going briſkly on; and many of the ſummer-fallows are in a forward ſtate. A good deal of ruta baga is already ſown; and the drilling of field yellow turnip will proceed without delay. The utility of the laſt mentioned eſculent is now completely aſcertained, and the quantity ſown is increaſing every year.

Seldom have the hay fields preſented a better proſpect; and hopes are entertained that a full crop of this neceſſary article will be reaped. Indeed, the demand for hay is now ſo great, that it cannot be ſupplied by an ordinary crop. The paſture fields alſo look well, where they were not too early, or too heavily ſtocked. Graſs rents have fallen conſiderably; a circumſtance not to be wondered at, when the heavy loſſes of laſt year are remembered.

Rarely have the ſtack-yards ſhown ſuch a naked appearance at this time of the year. In fact, many of them were emptied a month ago. This, of courſe, independent of other things, would have occaſioned an advance upon the price of grain, eſpecially as every part of Scotland ſeems equally ill ſupplied. An increaſed demand from the diſtilleries for barley and oats, however, cauſed a greater advance than would otherwiſe have happened, the laſt of theſe grains being now nearly as high priced as wheat, whilſt the other is from ten to twelve per cent. higher than the golden grain. Beans and peas are alſo ſcarce articles, and will ſoon be in few hands. Of wheat, a decent ſtock remains for ſummer conſumption; and the market through the ſeaſon, with the exception of one or two days, has regularly received a ſupply fully adequate to the demand that has appeared.

Upon the whole, rural matters muſt be reported as in a much better ſituation than could have been expected three or four weeks ago. Should the weather continue mild and temperate, without ſpiring winds and heavy daſhes of rain, there is reaſon to hope that the current crop, ſome of the wheats excepted, will make a return to the farmer ſuitable to the expenſe and trouble beſtowed upon its cultivation.——31. *May.*

ENGLAND.

Extract of a Letter from an English Gentleman who lately visited Scotland.

'MUCH as I always loved and reſpected the people of Scotland, I am now much better pleaſed with that country, in almoſt every reſpect, ſince I viſited it this ſpring, than I was beforehand from report. Of the agriculture, in particular, from what I had an opportunity of obſerving, the half had not been told me. The generally accurate culture, and exact economy of the ſoil, and its produce, aſtoniſhed me, eſpecially

eſpecially in thoſe parts of Eaſt Lothian that I had an opportunity of looking more nearly into. The reſpectable appearance, too, of every farm-ſtead, is well worth obſerving; ſuch, in fact, as I never ſaw any where elſe. On my return into Yorkſhire from theſe parts, the ſyſtem of management appeared to me to decline towards ſomething of an imitation only, particularly after recroſſing the Tweed. Few or none of thoſe noble turnip crops, which I had ſeen in Eaſt Lothian, and which, if here, would be worth 30l. per acre at this moment, were to be obſerved; yet, allowing for difference of ſoil, there are many extenſive farms under capital management throughout Northumberland. Some valuable crops of turnips were ſtill to be ſeen, but chiefly in the broadcaſt way; and every attempt at the improved plan of drilling, now adopted about Haddington and Dunbar, ſeems failing. Theſe remarks apply to Durham alſo, and the north parts of Yorkſhire; in the middle diſtrict of which county, ſcarcely a turnip is to be ſeen: ſuch are the effects of a bad ſeaſon, and of inferior management. The wheats in Scotland did not ſtrike me as being ſuperior to many fields ſouthward; but, from the few old ſtubbles left, I could not but draw concluſions in their favour. The preparations for drilled beans, turnips, and ſummer-fallows, were in a capital ſtyle; and, in ſhort, every agricultural operation was attended to, and executed in the moſt exact manner.

'Any perſon travelling from South Britain for the firſt time, when he hears of the extremely high rents that are paid for farms in Scotland, muſt be at a loſs to conjecture how the tenant can perform ſuch wonders upon his poſſeſſion, as enables him to diſcharge ſuch a vaſt out-payment in the ſhape of rent. Scottiſh farms muſt alſo be worked at an immenſe expenſe of labour. The Engliſh farmer, then, who has no idea of any thing like ſecurity of tenure beyond the current year, except in a few inſtances, naturally aſks, what is the taliſman that can effect theſe ſtriking reſults? what is the ſecurity for capital, not merely laid out, but ſunk and loſt for ever to the farmer, in increaſing and improving the permanent funds and income from an eſtate not his own? An Engliſh farmer muſt no doubt aſk all theſe queſtions, and more, in the true ſpirit of the antient times.

"Poor was his houſe, his father's painful hand
"Diſcharged his *rent*, and ploughed another's land."

However, before he can have long obſerved their improvements, and reaſoned on them, he will find all his doubts removed, and all his queries completely anſwered. In ſhort, *Long Leaſes* are the grand radical cauſe of the whole. Theſe ſo far *identify* the intereſt of the landowner and occupier in the actual improvement of the ſoil and eſtate, in ſuch a way as abſolutely to inſure the intereſt of both. It is underſtood that leaſes in Scotland vary much in their terms and conditions; but, it muſt be eſſential to the leaſe, and have the beſt effects on improvement of every kind, that the terms include both tenant, heirs and aſſigns. In a word, though formerly not a very warm friend to leaſes, I am now quite ſatisfied that this mode

mode of tenure is calculated to serve the proprietor fully as much, if not more, than his tenant. It is the alone way in which the full value of the landed property can be obtained, because it secures the tenant of time and opportunity to reap the fruits of every improvement in his power to make; and, unless he possesses that security, it is folly to expect that the beaten path will ever be left, or a new course be traced out. On these accounts, I confess myself a convert to the leasehold system, and earnestly wish that every acre of land in the kingdom was possessed under that tenure, the land which proprietors are pleased to farm themselves, only excepted.'

Letter from Wales, 20th May.

'In this quarter of the island, we have experienced a long winter, and rather a backward spring, although not an unfavourable one on the whole. We had four days successive rain in the beginning of April, which was the only hinderance experienced; since which, the weather has continued dry, and seed work has been done in a favourable way. The spring corn, in general, is looking well, but a great deal of the wheats are thin, owing to the many changes of black frosts and thaws during winter, without snow. I scarcely remember a winter with less snow than we had this year in the vale of Glamorgan. Since the first of this month, the weather has been warm, which recovered the wheats considerably, and we have a fine appearance of grass. For this last fortnight there has been a demand for cattle, and many have been drove eastward, though not at high prices; but, I believe, fully equal to those of last year. Cows and calves sell well. Sheep, I think, are rather below last year's prices, particularly ewes and lambs, which is not easily accounted for, as there is a general complaint of the loss of lambs this spring. Our markets have lately advanced, both for Corn and Butcher Meat. Wheat is now at 25s. and 26s. for 168 lib.; and there has of late been a call for Barley, which has advanced from 1s. to 2s. per bushel of 21 gallons; and there is a considerable rise in Oats, there being but few in the country. Beef and Mutton, from 7d. to 9d. per lib.; Veal, from 4d. to 6d.; Lamb, 7d.; Butter and Cheese still hold their price; Potatoes scarce and dear. We have a fine bloom on the fruit trees, and hope for a good crop, the season being late and mild.'

Letter from a Farmer near Wakefield, 21st May.

'After a long and severe winter, we are now favoured with warm and fruitful weather, which burst upon us all at once on the 1st of this month. Vegetation, since that time, has been very rapid; so much so, as at present to give us the prospect of full crops of hay and clover; also plentiful pasturage for our cattle and sheep. Though the winter was very severe, we had intervals of open weather, which afforded opportunities of ploughing for seed in good time; and the succeeding frosts brought the land into fine condition for the reception of the grain. I scarcely ever knew a season when land of every description wrought more freely, or when better work could

could be made. The continuance of cold, north-easterly winds, with severe frost at nights, during the months of March and April, put such a check upon vegetation, that we appeared to have gained no advantage by early sowing.

'Three weeks ago, I began to fear we should suffer much loss, apprehending the grain would have perished in the ground. I had beans and barley sown the first week in March, which did not make their appearance till the latter end of April; never, in my experience, can I recollect spring corn to have lain so long dormant in the earth. But, to my agreeable surprise, both beans and barley have come out, full and strong; and seem to have sustained no loss whatever, by being so long confined. Both sorts are looking very well, having grown rapidly since the commencement of fine weather; and should the season continue dry, as it appears to do at present, they will have the advantage of those later sown. Upon the whole, however, spring corn is tillering fast, and at present promises well. Wheats upon good land, in high condition, are also looking well; those upon wet spouty soils, though much recovered, are so thin upon the ground, and the plants so much reduced by the severity of winter, that they will have much to do to make an average crop.

'The season is favourable for turnip husbandry; and much of the land which is proper for that plant, is got into a forward state of preparation. It is probable a great breadth will be sown. Some Swedish turnips are already sown. Our markets for fat cattle have hitherto been well supplied, and the scarcity which was expected in this month, has not yet fallen out. In fact, it appears the quantity is fully equal to the present demand. The stagnation in trade makes the consumption in these articles much less, the lower class of people not being able to purchase much butcher meat. Beef is selling from 8s. to 9s. per stone of 14 lib. sink; Mutton, 8d. and 9d. per lib. sink; Lamb plentiful, at 9d. per lib. All grain appears to be on the advance, particularly Oats, which have this day sold at Wakefield, from 35s. to 48s. per quarter of 8 bushels; Wheat, from 9s. to 11s. per bushel; Beans, 7s. 6d. to 8s. 6d. per bushel.'

Northumberland Quarterly Report.

To the statement in last report, of the great quantity of frost through the winter, in this district, it may now be added, that the hopes then entertained that 'the winter was away,' have not been realized. The latter end of February was very frosty. From the 28th of that month to the middle of March, the weather continued open and fine, with some slight frosts. As there had not been much snow, and the thaws took place with little or no rain, the arable lands were in a remarkable proper state for putting in the seed; and nearly the whole that was ploughed were sown in this fortnight; the land requiring so little harrowing, from being so finely pulverized by the frosts, that nearly double the quantity of work was done in the same time that there is in some seasons. But, from the 15th of March

March to the 3d of April, snow fell almost daily, with intense frost, which considerably impeded the operations of husbandry. A fortnight of tolerably fine weather, though very cold, then occurred, in which period the remaining Spring seed was put in. At this time, there was scarcely a turnip left in the country, and the young clovers were the only source from which relief could be got. But the frost and snow began again on the 16th, and continued to the 29th. During this fortnight, there were repeated storms of driving snow, in many places several feet thick; and a time of greater calamity was never experienced by the stock farmer. It being the lambing season of the Cheviot ewes, more than half the lambs were lost, and great numbers of the old sheep also perished,—being so much reduced by the long and hard winter, that they could not bear the severity of this latter storm. The loss, on the whole of this winter, amongst the mountain farmers, has been greater than ever remembered; many of them having lost more than half their flocks. The lowland farmers, after the turnips were done, were obliged to have recourse to corn for their fat sheep, and their ewes and lambs,—until the clovers were fit to depasture, which, in most places, were not till the first week in May. Many have also experienced a great scarcity of straw for their cattle; and, of course, the stack-yards are pretty well thinned; and it is greatly to be feared, that there is not so much corn in hand as there usually is at this season.

The markets for fat stock have been nearly the same through the last quarter, viz. Beef from 6s. to 7s. per stone (of 14 lib.) sink, till about three weeks since, when an advance took place; and the prices are now from 8s. to 9s. per stone, sink, and mutton from 8d. to 9d. per lib. sink. The reason stated for this advance is, that many farmers, who used to give turnips to their straw cattle, and have them in forward condition to put to grass, so as to be ready for the butcher in one, two, or three months, had not this season turnips to give them; and, of course, they cannot come to market at the usual time. This deficiency being foreseen, enhances the value of the fat stock on hand. Lean stock has been sold at very reduced prices, from what the same description of cattle have been sold at for two or three years past.

Since the beginning of May, the weather has been fresh and warm, and vegetation has advanced with great rapidity. From the 8th to the 12th, a good deal of rain fell, which was of great use to the dry soils, but detrimental to the cold, wet lands, and particularly to fallows on clays and strong loams.——*May* 21.

Cumberland Quarterly Report.

The fall of rain near Wigton, a central part of this county, during these fifteen weeks, until the 20th day of this month, has amounted to little more than two inches; in consequence of which, operations in agriculture have met with almost no interruption. The month of March had only three wet days. Harsh cold winds, ungenial to vegetation, prevailed during the whole of April, which contributed to cause a very great declension in the price of heifers. The whole of this month has been propitious to the farmer; and a

very considerable quantity of rain has fallen since the 22d. Wheat sown in November, December, January and February, on dry soils, promises to be an average crop; but, in general, our early sown wheats, on the best prepared fallows, are very indifferent. The summer wheat (*triticum æstivum*) lately introduced into this county, sown during the *whole of April*, and some so late as the 5th of this month, wears a very flourishing appearance. No doubt can be entertained of its superiority to the winter wheat, in case of inclement autumns. Oats look in general very well. The ravages of the grub are only local. J. C. Curwen Esq. sowed 98 acres of oats during the first week in March, on a cold soil, 68 of which were drilled. He considers that the agriculture of this county has been injured by too late sowing, and hopes the success of his experiment will convince the surrounding husbandmen of the error of their present system. Arthur Young (see his 'Course of Experimental Agriculture,' a work that merits the careful perusal of every young farmer) found the conclusion of February and beginning of March, after repeated trials, the best season. Barley, where it has made its appearance, flourishes well. Arthur Young found March the best month for barley. From the 10th of this present month to the 20th is considered the best season, by the generality of farmers, in many parts of this county. We want, however, a sufficient number of accurately-conducted experiments, to ascertain the best season for sowing barley. Potatoes are in general planted. Grain, until the end of April and beginning of May, had a dull sale; Wheat 9s. 6d.; Oats 3s. 9d.; Barley 5s. 6d. *per* Winchester bushel. At present, wheat is 11s.; Oats 5s.; Barley 6s. 3d.; Potatoes 8d. per stone. The price of heifers is reduced nearly one third. Milch cows bring fair prices.—*May* 25.

Letter from London, 25th May.

'SINCE the report of last quarter, this market has continued to be well supplied from the ports on the east coast of England with grain of all kinds; and the prices remained pretty steady till within these two or three weeks, from which time there has been a good deal of activity in the trade. Wheat has advanced, during that period, 5s. to 6s. per quarter, oats about as much, and beans and grey peas rather more. The rise on the two last mentioned articles has been occasioned by the demand for them from Scotland, and the injury which the growing crops thereof have sustained. Oats are understood to be a good deal exhausted in the quarters whence they are generally brought to this market; and wheat seems to be affected, partly by the high proportioned prices of other sorts of corn, and in part by the complaints of its appearance on the ground; for it is not alleged that the stock on hand is any way deficient.

'Notwithstanding our differences with America are supposed to be adjusted, still the embargo continues, and neither the mother country nor the colonies are likely to receive any wheat or flour from that quarter soon. Although demands for these articles have been expected here from the West Indies, no shipments have been yet made beyond what are usual.

'The

'The evidence given before the Sugar Committee of the House of Commons, has made a general impression of the necessity of husbanding the corn resources of the country, without being calculated to excite any alarm whatever. As, however, the last crop of oats and potatoes were allowed to have been defective both in Scotland and Ireland, and these are not only the common, but the favourite articles of food of the lower classes in those countries, it were much to be desired that they could be induced to adopt, on occasions like the present, the equally nutritious and wholesome, and at same time less expensive food, of coarse wheat flour. Indeed, in Dublin, the consumption of that article has been double this season of what is generally used.

'The cold spring checked the progress of the winter wheats, which, in some districts, are reported to be thin; though both these and the spring sown have come forward very finely since the warm weather set in. The oats and barley were never got into the ground in better condition, and look well; but peas have in many places entirely failed, owing to the worm; and in Norfolk and Suffolk, many farmers have been obliged to plough up their whole crops, some of whom had from twenty-five to thirty acres each. Beans have been affected in same manner; but the injury to them is not of equal extent.

'Below are the prices of all sorts of corn at this day's market.

State of London Markets 25th May.

Wheat, Essex, Kent and Norfolk	76s.	80s.	82s.	per quarter
——— ditto and Norfolk Red	74s.	76s.	77s.	
——— North Country	70s.	72s.	74s.	
——— Dantzic and Koningsberg	70s.	72s.		
——— Russia and Courland,	none			
Barley, Norfolk and Suffolk	45s.	47s.	49s.	
——— North Country, &c.	43s.	44s.		
Malt, Norfolk and Suffolk	72s.	75s.	76s.	
Rapeseed, per last of 10 quarters	36l.	38l.		
Rye	50s.	51s.		per quarter
Beans, Pigeon and Small	66s.	68s.	70s.	
——— Ticks and Large	62s.	64s.	66s.	
Peas, White Boilers	145s.	150s.	155s.	
——— Hog or Grey	60s.	65s.	68s.	
Oats, Potatoe	46s.	48s.	50.	
——— Poland	44s.	46s.	—	
——— Feed	42s.	44s.	46s.	
Flour, English, per sack	60s.	63s.	—	
——— American, per barrel 196 lib.	42s.	44s.	—	
Tares, per bushel	22s.	24s.	—	

'It may not be improper to observe, that it is to be expected, that the parts of the country which used to receive large importations of wheat from the Baltic, from the beginning of this month to about Christmas, will, of course, this season, have to depend on the counties on the east coast of the kingdom for their supplies; and this circumstance may soon operate on the prices of that article.'

Letter

Letter from a Farmer in the East Riding of Yorkshire, 27th May.

'SINCE the date of my laſt the weather has been, upon the whole, uncommonly ſeaſonable for getting ſeed of every denomination into the ground. Notwithſtanding the pleaſing ſenſations that might ariſe therefrom, vegetation was kept ſo very backward, and fodder of every deſcription being ſo quite exhauſted in a great many inſtances, and ſtock getting ſo very poor in condition as to cauſe the minds of many people to be in a ſtate of great deſpondency; when the month of May was uſhered in, by the moſt genial weather that perhaps was ever remembered. Vegetation burſt forth with ſuch vigour, as in a few days to afford plenty of food for the brute creation, and pleaſure and aſtoniſhment for the mind of man to contemplate upon; and ſuch continues to be the caſe at this time. Cattle and ſheep ſeem to be very abundant; for, notwithſtanding food gets plentiful, there is but a ſmall advance in price for thoſe that are lean. Fat cattle are dearer; being now worth 8s. 6d. to 9s. per ſtone of 14 lib. ſink; Sheep, 7d. to 7½d. clipped; Lamb, 7½d. to 8d. Our grain markets are upon the advance. Wheat is ſelling at 75s. 80s. to 84s.; Oats, 37s. 40s. to 46s.; Beans, 60s. to 64s. The wages of labourers continue at nearly the uſual prices; but the rent of land is riſing with great rapidity.'

NOTICES TO CORRESPONDENTS.

THE gentleman in Aberdeenſhire, who ſigns himſelf '*A Clown*,' does not write in character. If, however, he is pleaſed to communicate his addreſs under cover to the Publiſhers, the Conductor will explain the particulars which he notices.

We are very well pleaſed with '*An Inquiry into the Cauſes of the late Riſe on the value of Land*;' but the paper is too long, and requires to be pruned. This can eaſily be done by leaving out two or three of the moſt diſtant cauſes, and ſome of the illuſtrations, without leſſening the utility of the paper in the ſlighteſt manner.

SCRUTATOR *on the Property-Tax*, and other matters, does not write amiſs; though, in ſome reſpects, his principles differ from thoſe which have influenced us when treating of that ſubject. We ſhall give him a hearing.

A Comparative View of East Lothian Husbandry in 1778 *and at this period*, will likely be preſented in our next Number; as alſo *the Lucubrations of* '*A Laird*,' though he ſeems to be in bad humour with his tenants.

A variety of other communications are received, which want of time prevents us from examining.

No. XXXV. will be published on Monday 15th August. Our reporters are reſpectfully requeſted to tranſmit a correct view of the crop in their reſpective diſtricts, and to favour us with their reports on or about the 6th of the month.

Erratum in this Number.——In Account of Stirlingſhire Huſbandry, p. 193, 6th line from bottom, for *ſeventeenth* read *eighteenth* century.

D. WILLISON, PRINTER, EDINBURGH.